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ABSTRACT

This instructional unit on population issues for use in high school social studies classes has been designed to provide the social studies teacher with a wide variety of instructional options. These are oriented toward providing non-college-bound juniors or seniors with visually stimulating activity-oriented instruction on vital social issues relating to population change. This unit is divided into three chapters. Chapter 1 is a description of the project design and development. Chapter 2 provides a brief overview of the purpose and structure of the unit along with suggestions for using the unit in the classroom. Chapter 3 consists of the instructional unit, which contains a series of activities each including a purpose, learning goals, teaching schedule, teaching aids, learning aids, teaching procedures, student application exercises, notes to the teacher, and student confirmation sheets. A section of student materials is also included along with a teacher idea grabbag. Resource materials are listed throughout the instructional unit and include: filmstrips, reading material, a visual questionnaire, role-playing and slides. A separate pamphlet, entitled "Population Pendulum," is also attached. (TK)

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POPULATION INQUIRIES: U.S. & WORLD DYNAMICS
VOLUME I

Population Education Project
Social Studies Development Center
Indiana University

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SE 018 110

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PREFACE: *Population Inquiries: U.S. & World Dynamics*

Overview

The Population Education Project of Indiana University has prepared an instructional unit on population issues for use in high school social studies classes.

The unit has been designed to provide the social studies teacher with a wide variety of instructional options. These are oriented toward providing non-college-bound juniors and seniors with visually stimulating, activity oriented instruction on vital social issues relating to population change. Resource materials include: three sound filmstrips, written student reading materials, a visual questionnaire for surfacing value controversies, a role-playing game, several 35 mm slides and a teacher's resource kit containing a variety of additional learning aids.

Structure of Document

Chapter 1 of this document describes the triumphs and tribulations encountered in the design and development of the unit. It is purely historical.

Chapter 2 of this document provides a brief overview of the purpose and structure of the unit, along with suggestions for using the unit in the classroom. Chapter 3 consists of the instructional unit itself.

Acknowledgements

Curriculum development is an arduous activity. There are always more things to be done--more lessons to be written, more classroom tryouts to be conducted, more revisions to be made--than one has the time, ability, staff or financial resources to accomplish. Development of Population Inquiries: U.S. & World Dynamics has conformed to this unwritten law of curriculum development. Over the several years it has taken to conceptualize, find funding, and produce the unit, many people have shared their ideas and talents with the project. To try to individually thank each of the people who have helped would only result in unintended oversights. Instead, a simple "thanks" to all of you who have contributed to this unit.

Staff

Projects are only as strong as the people who make them happen. This project was fortunate in being able to find gifted and dedicated people who consistently worked beyond the call of duty. These are the people who made the unit happen:

* Superhero generating chief consultant, Dr. Allen Glenn, from the University of Minnesota.

* Organization expert and value clarifier, Phyllis Repicky.

* Chief folklorist, humanist, resident artist and advocate, Priscilla Denby.

* Expediter, miracle of the keyboard, draftsperson and all-around good person, Eddie Albright.

* Some-time accountant, interior decorator and printshop negotiator, Beth Hittle.

* Cheerleader, prototype testing teacher and parttime developer, Michelle Searles.

* Project director, fiendy and creator of chaos, Jerry L. Brown.

CHAPTER 1

PROJECT HISTORY

Work on the project that was to evolve into Population Inquiries: U.S. & World Dynamics began in February 1971 when the Population Council awarded a small grant to the Social Studies Development Center of Indiana University. Under terms of this grant, a blueprint was produced for a six-week instructional unit on population for use in the secondary school social studies classes. Activities preparatory to the design of the unit included:

1. Determination of what population educators, subject matter experts, teachers and students thought students should know about population;

2. Evaluation of what students knew about population;

3. Specification of instructional objectives appropriate for a twelfth grade social studies unit on population; and

4. Preparation of a plan, or formulation statement, to guide the development of the unit.

Having finished the blueprint for the unit in the winter of 1971, the Indiana University Laboratory for Educational Development supported the project while a search for funds to support materials development was begun. This search lasted until 1972 when a grant was received from the Office of Environmental Education (U.S. Office of Education--DHEW). This grant was to become effective July 1, 1972. However, because of a delay in the announcement of grant recipients and the need for protracted negotiations over funding arrangements between the Indiana University Foundation and the federal government, actual development of materials did not begin until December 1972.

The delay in project activation following the awarding of the grant made difficult the recruitment of personnel to help staff the project and caused the development timeline to be thrown out of synchronization with the University calendar, as well as that of the public schools. Moreover, a reduction in the amount of money granted compared to the amount requested required that some reconceptualization of the intended unit's scope had to occur. Nevertheless, despite these difficulties, a set of prototype instructional materials were produced and tested in May, 1973 in several social studies classrooms in Fort Wayne, Indiana. The majority of students in the tryout group consisted of non-college-bound seniors.*

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* A special thanks to Mr. Don Evans, a teacher in the Fort Wayne schools, for his help during the tryouts.

Among the most significant--and ultimately demanding--observations made during the tryout was the strong preference expressed by students for mediated materials, games and structured exercises and activities--particularly those involving small group interaction.* These findings, plus observer inference that a high degree of concreteness was required if average ability level high school students were to profit from the unit, forced another reconceptualization of the unit's contents and procedures and led to the decision to include much more media than originally had been planned. Both the reconceptualization activity and the enlargement of the media component required a reallocation of monetary and staff resources. Since the project's person power and financial resources were limited, this reallocation necessitated sacrifices in the scope of the project's activities.

These reductions took the form of reduced graphical enhancement for written materials and a severe cutback in plans for formative evaluation. The first cutback was regrettable because of a firm belief in the need to present students with visually attractive materials in order to arouse and keep their attention while reading. The second cutback was similarly regrettable because of a belief in (and desire to adhere to) the principles of systematic curriculum design. Nevertheless, the cutbacks had to be made. If the unit were to succeed, it appeared that considerable attention would have to be given the media and game components. To settle for formative evaluation without putting our best foot forward would make the evaluation of little value--especially when affective objectives were being addressed and where media and/or games were needed to create a mood.

Therefore, rather than electing to have a fairly wide scale formative evaluation, as was originally intended, a strategy of small scale, critical components' evaluation was adopted. Using a student advisory board for some activities, expert judgments** and small group and classroom size samples of students, various portions of the unit were tested singly or in combination during the formative stages. Although an evaluation of the unit's performance in its entirety is lacking (i.e. a summative evaluation), it is hoped that such an evaluation can be conducted in the future.

To summarize, the present version of Population Inquiries: U.S. & World Dynamics evolved over a period that began in 1970. During this time, as a result of experience gained by limited prototype tryouts, by additional research and by changes in the social environment in the United States, the unit was reconceptualized several times. Because of changes made in the unit

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* Related to this was a strong distaste for having to read any type of text materials.

** Consultants during the materials production stage included: Dr. Allen Glenn, University of Minnesota (Education); Dr. Parker Marden, Lawrence University (Sociology); Drs. Tom and Shirley Poffenberger, University of Michigan (Population Studies/Public Health); Mr. Stephen Viederman, Population Council (Population Education). Dr. David Kline, Harvard (Population Education) served as "summative critique" for the project.

that required additional attention to media production and the development of gaming activities, time and resources originally targeted for evaluation were directed to support production. Consequently, although various components of the existing unit have been classroom tested and revised, the need for a summative evaluation over the completed unit exists. It is hoped that such an evaluation, followed by dissemination of the unit, can occur within the near future. Plans for accomplishing this goal are now being developed.*

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* The unit, in prototype form, was displayed at the Social Studies Development Center display booth during the 1973 meeting of the National Council for the Social Studies. A brochure was prepared for distribution at this meeting. The brochure has resulted in a number of inquiries, including several offers to test materials at the expense of participating schools.

CHAPTER 2

CLASSROOM USE OF POPULATION INQUIRIES: U.S. & WORLD DYNAMICS

Population Inquiries: U.S. & World Dynamics is an instructional unit oriented toward eleventh and twelfth grade students. The unit is designed to provide a variety of interesting, activity oriented lessons that have strong cognitive and affective components. Total instruction time for the unit will ordinarily require three to four weeks. More or less time may be devoted to the unit depending on student and teacher interest.

The primary goal for the unit is to encourage students to be knowledgeable about the complex nature of population issues and the manner in which changes in population size, rate of growth (or decline) and/or distribution affect U.S. and world society.

LESSON DEVELOPMENT

Population Inquiries: U.S. & World Dynamics approaches the study of population from an interdisciplinary perspective that balances U.S. and world concerns. The unit, with the exception of the first, springboard lesson, does not emphasize the existence of a population "problem." Rather, students are encouraged to learn about basic population dynamics, first on an international basis, then on a national level. Once this is accomplished, students are encouraged to consider factors which make something a problem. In doing this students should come to see that there are many types of social problems that can be considered to be population "problems." The most well-known of these problems is rapid world growth, but there are others. These relate to migration, uneven distribution, composition and the belief in many countries (and localities) that underpopulation exists.

As students begin to understand the complex nature of population dynamics, they are given opportunities to contrast how societies of different types create and respond to population issues. This involves a comparison of U.S. society with a traditional, non-industrialized society, as represented by India.

Having studied the nature of life in rural India, students are asked to consider how they might try to alter living conditions so as to promote conditions that might encourage a reduction in India's rate of population growth. This leads to consideration of international assistance needs. Needs are examined from a non western perspective as well as from the perspective of the United States. Students are confronted by the question of whether international assistance is required, and if so, what form it should take or what activities it should reinforce.

Finally, students have to deal with the issue that no matter what events occur in the near future, world population will grow for at least several generations even under the most optimistic of assumptions (barring a world catastrophe). Hence, the issue to be faced by students is how they can prepare for life in a world that will be continuously expanding each day of their lives. What responsibility do they have for the future and for the period after they have lived their lives?

UNIT CONTENTS

The sequence and topics for the lessons are shown below. Lessons are grouped by category and by topic within the category. The first number refers to the category, the second to the topic.

1. THE CHALLENGE OF POPULATION

.1 Systems Man In Trouble: The Return of the Population Fiendy
(A springboard lesson that uses a filmstrip to introduce the issues to be considered in the unit.)

2. COMPONENTS OF GROWTH

.1 The World in a Bottle
(A transparency lesson that makes explicit the basic components of world population size change: births and deaths.)

.2 Components of Growth for a Nation
(A workbook-based lesson that contrasts components of world size change with those that influence a nation's size: births, deaths and migrants into and out of a country.)

3. POPULATION DISTRIBUTION

.1 U.S. & World Urbanization
(A transparency and reading lesson that reviews U.S. and world urbanization trends and considers implications of increasing worldwide urbanization.)

.2 U.S. Population Distribution
(A "teacher choice" lesson that permits the teacher to select the instructional activities to be followed from a pool of activities. All activities deal with the consequences of present U.S. distribution patterns, factors that influence this pattern and obstacles to modifying it.)

4. DEALING WITH VALUES

.1 What Are Values?
(A didactic filmstrip lesson that deals with identifying value statements and construction of "complete" value statements.)

.2 Values Related to Population: Is There A Problem?
(An application lesson relating to value analysis and consideration of whether various population issues are social "problems.")

.3 Value Conflicts
(A "teacher choice" lesson involving selection of an instructional activity from a group of activities, all of which relate to finding ways of dealing with value conflicts related to population issues.)

5. INDIVIDUAL DECISIONS & POPULATION CHANGES

.1 Family Size: Patterns in the U.S.
(A group-based lesson dealing with motivations for childbearing in the U.S. and the personal and social consequences of family size in the U.S.)

.2 Family Size Patterns in Less Developed Countries: A Case Study of Life in Rural India
(A filmstrip lesson dealing with motivations for childbearing in a developing nation.)

.3 Understanding Pressures on Families in Less Developed Countries: India
(A game-based lesson reinforcing the concepts developed in the previous lesson.)

.4 Dealing With Population Growth on the Local Level
(A simulation exercise dealing with the generation of a population program at the local level for a developing country.)

6. INTERNATIONAL APPROACHES TO POPULATION POLICY

.1 What Should Industrialized Countries Do?
(A reading/discussion lesson presenting a non western view of population assistance needs.)

.2 Policy Decisions: The U.S. International Role
(A simulation exercise and discussion dealing with assistance decisions from the perspective of the U.S. government.)

7. FUTURE WORLD GROWTH

.1 Conclusion and Evaluation
(A summary lesson and evaluation of unit that involves a replay of the filmstrip shown during Lesson 1.1.)

MATERIALS PROVIDED

Population Inquiries: U.S. & World Dynamics is a multi-media teaching unit. As presently organized, it consists of a teacher manual, a teacher idea and resource "Grabbag," a set of student handouts--including a Population Pendulum booklet, three sound filmstrips, two posters to accompany one of the filmstrips, a 35 mm slide set, overhead transparencies, a game and an optional classroom set of three-ring, looseleaf notebooks for students to use to store their handouts.

PREPARATION FOR TEACHING THE UNIT

Some knowledge about population processes is helpful but not crucial for teaching Population Inquiries: U.S. & World Dynamics. Since relatively few teachers have had formal courses in population dynamics and inservice education opportunities are limited, lesson plans are structured in a manner that should

permit most teachers to feel comfortable using the materials. Without trying to "program" the teacher, the lesson plans (a sample is shown on the next page) try to be specific in regard to the concepts to be taught and the outcomes to be achieved. Moreover, the developers have tried to show in a detailed way how they would teach the lessons under ideal conditions. Since teaching styles vary and since less than ideal conditions obviously exist in most schools, it is expected that most teachers will modify the lessons to fit the needs and interests of their students as well as their own teaching style. It is important to remember that the lesson plans are ideals. They should not be taken into the classroom and followed in a word by word fashion. Rather, it is suggested that the teacher study the lesson plan in order to see what the developers had in mind and to get an idea as to how the developers would teach the lesson. Then, using notebook paper or three-by-five cards, the teacher should note down the main components of the lesson, making changes as required to fit class needs and interests. The actual lesson should be taught using the teacher's notes. Particular attention should be given to time requirements since the times listed on the lesson plans tend to be very optimistic. In most cases, additional time --especially for discussion--will be required.

INTRODUCING THE UNIT
Before each class:

* Read through the lesson plans for the lesson and modify the lesson as required.

* Generate a set of notes from which to operate during class.

* Make sure necessary materials have been prepared and/or assembled for distribution. If media is needed make sure it is present and operating.

Before Day 1:

* Several days prior to the start of the unit place the "Systems Man" and "Population Fiendy" posters on the bulletin board. (The posters are in the storage tube that accompnaies the unit. The tube also contains the game for Lesson 5.2.)

  The purpose of the posters is to arouse student speculation about what's coming next. Systems Man and Fiendy handouts can also be duplicated and distributed at this time if you wish.

  Since many students like to color the posters and handouts--even high school students--contests of one form or another may be held.

  Students are likely to inquire as to the purpose of the posters. If possible, try to postpone answering their questions.

* Assemble all materials for the first week (or more, if possible), so that instructional activities can be given all your attention.

* Make sure you have adequate storage facilities available for the handouts.

* Make sure, if you are duplicating your own materials, that adequate supplies of duplicating materials are available.

SAMPLE LESSON FORM

Indiana University Population Education Project

Topic → Population Inquiries
1 - The Challenge of Population

TEACHING ACTIVITY 1.1 SYSTEMS MAN IN TROUBLE

Specific Lesson

PURPOSE	*Overview of lesson*
LEARNING GOALS	*Learning outcomes students are to achieve as a result of this lesson*
TEACHING SCHEDULE	*Estimated time for each activity (optimistic)*
TEACHING AIDS	*Teacher materials*
LEARNING AIDS	*Materials needed by the student for this lesson*
TEACHING PROCEDURE	*Sequence of activities as the developers would teach the lesson under ideal conditions*

Day 1:

* Introduce the unit and have an enjoyable learning experience. Try to make the unit as entertaining as possible. If students enjoy the materials they will learn from them and will become active in seeking additional knowledge about population.

EVALUATION

Several lessons contain evaluating activities. Moreover, the final lesson involves an evaluation of the entire unit. Teachers wishing more frequent or detailed evaluations should develop their own examinations based on the learning goal statements for each lesson.

ADDITIONAL MATERIALS

Population Inquiries: U.S. & World Dynamics is a self contained unit of instruction. It may, however, be used with additional instructional materials. Teachers wishing to supplement the unit with additional text material may want to consider the following:

The American Population Debate, edited by Daniel Callahan, Doubleday, Garden City, N.Y. (1971) 375 pp., $2.50. (High school and adult)

Episodes in Social Inquiry, Sociological Resources for the Social Studies, Allyn and Bacon, Boston (1972-73) (Grades 10-12)

Our Overcrowded World, by Tadd Fisher, Parents' Magazine Press, 52 Vanderbilt Ave., New York 10017 (1969) 256 pp., $4.50. (High school and college)

Population, by Valerie Oppenheimer, Foreign Policy Association, 345 E. 46th St., New York 10017, Headline series no. 206 (1971) 95 pp., $1.00. (Grades 10-12)

Population and the American Future, The Commission on Population Growth and the American Future, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (1972) 186 pp., $1.75. (High school and adult)

Population Growth and the Complex Society, edited by Helen MacGill Hughes, Sociological Resources for the Social Studies, Allyn and Bacon, Boston (1972) 212 pp., $1.68. (Grades 11-12)

Population Profiles, by Leon Bouvier and Everett Lee, Center for Information on America, Box C, Washington, Conn. 06793 (1972-73) 12 eight-page leaflets, 50¢ per unit. (Grades 10-12)

We, The Americans, U.S. Bureau of the Census, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (1972-73) series of booklets, 35¢ each. (Grades 7-12)

Film resources that may be profitably used with the unit include:

Boomsville--11 min., 16 mm., color (1969). Learning Corp. of America, 711 Fifth Ave., New York 10022. Purchase $150; rental $15. (Grades 5-12) (Lessons 3.1 and 3.2)

Population and the American Future--60 min., 16 mm., color (1972). Fisher Film Group, 216 E. 49th St., New York 10017. Purchase $300. Free loan from Modern Talking Pictures, 2323 New Hyde Park Rd., New Hyde Park, N.Y. 11040. (Grades 7-adult) (Lessons 3.1, 3.2, 4.2)

Promise City--30 min., 16 mm., color (1971). Indiana University, Audio Visual Service, Bloomington, Ind. 47401. Purchase $350; rental $11.50. (High school and adult)

We--30 or 15 min., 16 mm., color (1973). U.S. Bureau of the Census, National Audio-visual Center, Washington, D.C. 20409. Free loan. (Grades 7-adult)

CHAPTER 3

POPULATION INQUIRIES: U.S. & WORLD DYNAMICS

The materials in this section consist of the teaching unit.

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TEACHER LESSON GUIDES

TEACHING ACTIVITY I.1 SYSTEMS MAN IN TROUBLE: THE RETURN OF THE POPULATION FIENDY

PURPOSE

The purpose of this lesson is to:

1. Stimulate interest in the topic of population change.
2. Introduce the student to some of the problems associated with population change and obstacles facing people as attempts are made to deal with changes in population size and distribution.
3. Introduce main topics of study for the unit.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Describe how changes in population size and distribution can cause problems in a society.
2. Cite examples of problems in today's society that may be related to changes in population size, rate of growth, or degree of urbanization.
3. Identify things in society that may facilitate or impede efforts to attack these problems.
4. Speculate about ways in which the problems identified above may be confronted.

TEACHING SCHEDULE

Unit Introduction	15 minutes
Presentation: Systems Man Filmstrip	10 minutes
Individual Exercise	5-10 minutes
Class Discussion	10-15 minutes

TEACHING AIDS

A/V Aids	A/V Equipment
Sound Filmstrip (Systems Man)	Filmstrip projector Tape player (Reel to reel)

LEARNING AIDS

Individual Reaction Sheet I.I (Systems Man)

TEACHING PROCEDURE

UNIT INTRODUCTION
15 minutes

* OVERVIEW OF UNIT: POPULATION INQUIRIES

1. Tell the class they are beginning a study of population and the problems associated with population changes.

2. During the next several weeks the class will be exploring some of the issues related to changes in population size, rate of growth, urban-rural distribution, and age-structure.

3. The class will also examine ways in which these issues can be, and are being, confronted --both in the United States and in other countries of the world.

4. Topics to be examined include:

   A. The nature of population changes--what causes a population to grow or decline or to shift from being a rural population to an urban population.

   B. Current trends in the U.S. and the world as they relate to population.

   C. Some of the causes and consequences of population changes--both in the U.S. and abroad.

   D. Ways in which people, as individuals and members of groups, adapt to the by-products of population changes.

   E. Ways in which people, as individuals and members of groups, can influence population trends and their by-products, both in terms of the U.S. and other countries of the world.

   F. Ways in which the U.S. can contribute to other countries' efforts to deal with population changes, as well as ways in which our government can cope with by-products of changes in our population size, rate of growth, urban-rural distribution, and age-structure.

5. Discuss organization of materials in the unit.

   A. There is a series of handouts that go into a binder. Therefore, students will not have a textbook.

   B. Handouts and notes should be saved in the binder.

   C. There will be several quizzes to see if students are mastering the material.

   D. In addition, exercises will be assigned and graded.

   E. Opportunities for extra credit projects do exist.

* PRESENTATION *10 minutes* *

* INTRODUCTION TO LESSON ONE

TEACHER NOTE

This lesson is designed to stimulate student thinking about the problems associated with the population question. Do not worry about conclusions. Encourage students to speculate as much as possible.

Filmstrip-Tape (Systems Man)

1. Filmstrip is introduced.

   A. Today we will explore one central question: Can Systems Man overcome the never-ending crusade of the Superweird Population Fiendy?

   B. To begin to find some possible answers to this question, we will look at a filmstrip and complete a group activity. Watch the filmstrip carefully. Note the various characters and the problems that they face.

2. Present filmstrip. The filmstrip is a spoof that involves a superhero, Systems Man, and a villian, the Population Fiendy. Because of the humourous nature of the production you may want to present the filmstrip two times. Issues touched upon by the filmstrip are discussed in the Teacher Guide for the filmstrip. They are:

   * Population size and rate of growth.
   * Agricultural production and technology.

* Population distribution.
* Social organization (the ways in which societies characteristically deal with problems).
* Consumption patterns and values.
* Male and female roles and their relation to family size.

EXERCISE
5-10 minutes

* INDIVIDUAL EXERCISE 1

1. Individual reaction to the filmstrip is surfaced using the Individual Reaction Sheet.

Reaction Sheet 1.1
(Systems Man)

A. Distribute Reaction Sheets to students.

B. Ask students to complete the Reaction Sheet using the information presented in the filmstrip as well as their own knowledge about population and environmental issues.

TEACHER NOTE

After 5-10 minutes interrupt individual activity and proceed with the class discussion. A teacher's copy of the Reaction Sheet is provided to help guide discussion. This guide should be referred to at this point.

DISCUSSION
10-15 minutes

* EXERCISE DISCUSSED

1. Question 1: Let's examine our tentative conclusions about the problems presented in the filmstrip. Why was Systems Man concerned about the activities of the Superweird Population Fiendy?

   * Rapid growth threatening life support system.

   * Rapid growth throughout the world makes it difficult to produce enough food to go around.

   * Americans' high level of resource consumption endangered by rapid expansion of our population and that of other peoples.

   * Concentration of people in urban areas producing social and environmental problems.

* Population pressures cause new technologies to be rushed into use without considering the social and environmental consequences of their use (e.g. DDT, fertilizers, etc.).

TEACHER NOTE

These are sample answers. Actual answers may differ significantly. No attempt should be made to produce a fixed set of answers. Rather, a diversity of viewpoints should be encouraged at this stage. Note to the class that individual and group positions represent value positions based upon knowledge and interpretation of certain facts. Use this point as a reference point to return to later in the unit when talking about values.

2. Questions 2 and 3: Does everyone in the class agree about the three major problems facing Systems Man? Or the most serious problem? If there were disagreements, ask students why they think they disagreed.

   * People had different amounts of knowledge about different issues.

   * Individuals differed in their interpretations of how serious a particular problem was.

TEACHER NOTE

Again, you can point out that differences in interpretation of the seriousness of an issue can often be traced back to different value positions. This is another reference point that can be referred to later in the unit when values are considered.

3. Question 4: Review EM Force members' assignments and how they were to counteract the Fiendy (see Guide).

4. Question 5: Ask students how the EM Force is aided by things we do, and how the Fiendy Force is aided by the things we do. Do this for each major problem identified by students.

TEACHER NOTE

You may want to list the problems presented Systems Man on the board. Then by each problem list how the EM Force teams and Fiendy Force teams planned to either over come the problem or make it worse. List EM Force approaches in one column and Fiendy approaches in

another. Have the class examine and compare the things in our everyday life that the EN Force and the Fiendy Force build upon. Answers to these questions can be viewed as hypotheses to be tested as students proceed with the unit.

* SUMMARY

1. Have students note these problems on a sheet of paper and put the paper in their notebooks for possible use later in the unit.

2. Briefly summarize the discussion, noting major points that might have arisen, for example:

   * Population growth is considered a problem by some--both for the U.S. and other countries of the world.

   * Population distribution (rural-urban distribution) is considered a problem by some--both for the U.S. and for other countries of the world.

   * Americans' high standard of living and environmentally stressful methods of transportation and manufacturing complicate issues related to population growth and patterns of urban-rural distribution.

   * In any society there are a number of things which either complicate efforts to deal with population issues or which aid efforts to deal with population issues. For example, in the United States, current interest in equal employment opportunities for women, by enabling women to assume responsibilities outside the home, is likely to help reduce the level of fertility of American women. It also will probably contribute to added urbanization.

The Adventures of Incredible Systems Man

Systems Man Meets the Superweird Population Fiendy

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Visual	Audio
1. Focus frame.	
2. Blank.	
3. Picture of Earth with invisible space platform.	3. High above the Earth, orbiting in a secret invisible space station,
4. Computer tapes with printouts with titles such as pollution, heat level, etc.	4. Keeping tabs on the Earth's vital functions
5. Systems Man is shown.	5. Is Incredible Systems Man!
6. Title: Systems Man Meets the Population Fiendy.	6. This week's adventure: Systems Man Meets the Superweird Population Fiendy. . .
7. How dense can you get?	7. Or . . .How dense can you get?
8. Pond Water collecting bottle caps under a tree.	8. Our story opens with mild-mannered ecologist, Pond Water, at work collecting bottle caps to take to his local recycling center.
9. Bottle cap hunting. Picture of yellow-breasted herringbone.	9. As Pond Water is about to pick up his fourteenth bottle cap--find of the day--he notices the song of the yellow-breasted herringbone above his head.
10. Systems Man ducks behind tree and unleashes psychic energy.	10. Quickly ducking behind the nearest tree, mild-mannered ecologist Pond Water unleashes his psychic energy,
11. Systems Man hurdles through space.	11. Transporting himself to the orbiting invisible space platform, where he appears as Incredible . . .
12. Materializes as Systems Man.	12. Systems Man!
13. Computer printout shown with Systems Man studying it.	13. There in his space platform, Systems Man reads on his computer printout that his longtime foe, Population Fiendy,
14. Population Fiendy balancing things.	14. has again returned to challenge the capability of the Earth's life support system.

15. Systems Man bangs button in control room.	15. "Something must be done!" yells Systems Man, as he bangs the button summoning his Ecological Mission Force.
16. EM Force assembles in space platform.	16. Almost instantaneously, the EM Force assembles in the space platform's EM Planning Room to begin planning the downfall of the Superweird Population Fiendy.
17. Fred Fertz.	17. There is Fred Fertz, agricultural scientist, inventor of miracle seeds, maker of fertilizer, and all-around spreader of sunshine. His job: to attack the Population Fiendy where it counts. . .
18. Grain growing at agricultural experimental station.	18. in the bread basket by helping the world produce more and better food.
19. Malcolm Nitz, talking at U.N.	19. Malcolm Nitz, political scientist, politician, and student of human behavior. His job: to help leaders of the governments of the world to find ways of organizing people to resist the Superweird Population Fiendy.
20. Loose Nut working on an invention.	20. Loose Nut, EM Force technologist. His job: find ways of resisting the Superweird Population Fiendy through invention, for example, in the areas of medicine, energy, and electronics.
21. Fairy Tale.	21. This is Fairy Tale, creator of life styles. Her job as EM task force member is to convince people that what is, ain't, and what isn't, should be.
22. Fairy Tale talking to women.	22. Her assignment in this mission is to convince women to get out of the house and into the job market so that they have fewer kids. . .
23. Fairy Tale encouraging people to move to country.	23. get people to live in the country rather than the city. . .
24. Person rejecting high consumption values.	24. and to live better with less. So that there's more to go around.
25. Fiendy preparing counterattack with little Fiendies.	25. But the Superweird Population Fiendy is no fool. He's been around a long time. As the EM Force plots his downfall, he prepares his little Fiendies for a counterattack!

26. Fiendy casting spell. Dead fish in stream.	26. Little Fiendies make sure new types of seed require lots of fertilizer that pollute streams and which people in poor countries can't afford.
27. Picture of city excitement.	27. Or that city life is a lot more adventurous.. .
28. Farm scene.	28. . . .more adventurous than country living.
29. Loose Nut working on invention.	29. Other Fiendies help make sure that new inventions are hard to use, expensive to buy . . .
30. Invention exploding.	30. . .. or risky.
31. People defending motherhood.	31. Or that women don't want to give up having lots of children in order to have good jobs and careers.
32. Scene of mother in kitchen.	32. Or that many women have a long way to go before they can start thinking about doing things other than having children.
33. Systems Man at chalkboard.	33. At best, Incredible Systems Man and his EM Force have their challenge before them.
34. People walking toward rainbow.	34. Will they succeed?
35. Overcrowding cartoon.	35. Or will they fail?
36. Title: The Case of the Missing Data.	36. See our next adventure--The Case of the Missing Data. . .
37. Cartoon of Fiendy holding census data.	37. Or We Lost Our Census.
38. The End.	
39. Credit frames.	

TEACHER VERSION

SYSTEMS MAN VS. THE POPULATION FIENDY

Individual Reaction Sheet No. 1.1

You have just watched a filmstrip about Systems Man, the EM Force, and the Population Fiendy. It is your job to think about the problems presented in the filmstrip and to help outwit the Population Fiendy and his gang of little fiendies.

Working by yourself, your mission is to provide information on each of these questions. (Time Limit - 5 minutes)

1. Why was Systems Man concerned about the activities of the Superweird Population Fiendy?

   Felt population was challenging Earth's ability to continue supporting human life.

2. What are the three major problems facing the EM Force in its mission against the Fiendy?
   * *Population Growth (and Distribution)*
   * *Technology and Pollution*
   * *Problems related to values and life styles, for example,*
     a) roles for women that limit them to childbearing and housework, or
     b) consumption of high levels of world resources
3. In your opinion, which of the three problems above is the most serious? Why?

4. What can each one of the EM Force members do to fight the devilish Fiendy and his scurvy crew?

* Loose Nut (EM Force Technologist)

Invent new things to help reduce population growth (i.e. improved contraception), to increase world resources in area of energy, minerals, and food, and to find ways of avoiding pollution related to existing technology.

* Fred Fertz (EM Force Agricultural Scientist)

Develop new foods, increase yields of existing foods, find ways to preserve foodstuffs and to distribute them to people.

* Fairy Tale (EM Force Creator of Life Styles)

Influence the way people think. If women have opportunities outside the home and if men don't put pressure on women to bear children, family size may decline. If each person consumes less resources, existing resources may go further.

* Malcolm Nitz (EM Force Diplomat)

Help governments set up programs to improve the life of their people and, in so doing, help reduce pressures from growing population. This may also lead to programs designed to slow population growth or change population distribution.

5. What things in the way people live will help the Population Fiendy fight the efforts of each EM Force member named below?

* Loose Nut (EM Force Technologist)

Inventions are expensive, risky, hard to use, and people are reluctant to try new things.

* Fred Fertz (EM Force Agricultural Scientist)

Many new agricultural techniques are expensive. They use more energy than they return, require costly machinery or sophisticated irrigation techniques which are expensive and often lead to pollution.

* Fairy Tale (EM Force Creator of Life Styles)

People don't always want to abandon traditional ways of living. And even if they want to . . . can they?

* Malcolm Nitz (EM Force Diplomat)

Governments disagree over population issues and what can and should be done about population. Little is known about how to adjust to population changes or to change people's behavior in regard to family size or preference for living in one region or another.

Population Inquiries
2 - Components of Growth

TEACHING ACTIVITY 2.1 THE WORLD IN A BOTTLE

PURPOSE

The purpose of this lesson is to introduce the student to the concept that changes in the size of the world population are the product of individual births and deaths. With this information students can begin to consider the factors which influence increases or decreases in the rate of world population growth or decline.

LEARNING GOALS

After completing this activity, the student should be able to:

1. State that changes in size of the world population are determined by the relative number of births and deaths in a given period of time.
2. Identify how changes in the balance of births and deaths affect the size of the world population.
3. Explain how medical technology, through the reduction of mortality especially within the last twenty years, has led to an unprecedented increase in the rate of world population growth.
4. Define the terms, "natural increase," "natural decrease," and"stable-size" population.

TEACHING SCHEDULE

Review-Relate	5 minutes
Thought Experiment	10-15 minutes
Application Exercise	5 minutes
Presentation	5 minutes
Exercise and Assignment	15 minutes
Optional Activity	

TEACHING AIDS

A/V
Transparency
1. "World in a Bottle"
2. Definitions of Terms
3. World Growth

A/V Equipment
Overhead projector

LEARNING AIDS

Activity Booklet A and Confirmation Sheet 2.1.1 (Application Exercise and Reading)

TEACHING PROCEDURE

* REVIEW-RELATE *5 minutes* *

* INTRODUCTION: MAJOR POINTS

1. Ask students to recall some of the problems related to population change and some of the things in our daily life that could make the problems more difficult or which could help solve them.

2. Point out that today's lesson looks at world population growth. This is a topic about which most students already have some knowledge. However, we are going to look at world growth differently than they might expect--in terms of a balance of births and deaths.

3. Distribute Activity Booklet A and review objectives printed on the cover. Point out that these can be used as a self-test by students.

   A. After the lesson today, students should be able to explain how the balance of births and deaths throughout the world affects world population size.

   B. Students should be able to define the terms, "natural increase," "natural decrease," and "stable-size" population.

   C. Students should be able to describe how the balance between births and deaths has changed throughout history and how this has affected population size over history.

   D. Finally, students should be able to identify some things (e.g. advances in farming, medicine, better nutrition, better forms of transportation, etc.) that have influenced the number and balance of births and deaths at various points in human history.

THOUGHT EXPERIMENT
10-15 minutes

* WORLD POPULATION IN A BOTTLE

Transparency 1
(No Overlay)

1. Imagine that this bottle is the Earth. The fluid in it stands for the size of the Earth's human population.

   A. By opening and closing the valves at either end, I can control the size of the population.

   B. I do this by controlling the balance of "births" and "deaths."

(Overlay A projected)

   C. For example, I can open the bottom valve--creating deaths.

(Overlay B projected)

   D. Or I can open the top valve--creating births.

(Overlays A&B)

   E. Or I can open both valves, so we have births and deaths.

Transparency 2

   F. When births out-number deaths, the size of the population grows. This growth is called NATURAL INCREASE.

   G. When deaths out-number births, the size of the population decreases. This is called NATURAL DECREASE.

   H. When births and deaths are equal the size of the population stays the same. The population size is said to be STABLE. This is sometimes referred to as a condition of zero population growth.

Transparency 1

2. Manipulating the Bottle.

(No Overlay)

   A. Let's look at this bottle again. What happens if both valves are closed?

      * The size stays the same.

      * Population is in a stable-state.

(Overlay A projected)

   B. What happens if I open the bottom valve a little--more--or all the way?

      * The population will decline through natural decrease since deaths out-number births.

      * The speed (i.e. rate) of decline will depend on how great is the margin of deaths over births.

31

(Overlay B projected)

C. What if the bottom valve is closed and the top is opened--a little--more--or all the way?

* The population will grow through natural increase since births ou-number deaths.

* The rate of increase will depend upon how many more births there are compared to deaths. The greater the margin of births over deaths, the faster the growth.

(Overlays A&B)

D. What happens if both valves are open?

* Can't tell.

* Need to know if valves are open the same amount, or if they are open different amounts.

* Depending on "openings," population can grow, shrink, or stay the same.

* APPLICATION EXERCISE *5 minutes* * * STUDENT APPLICATION EXERCISE

TEACHER NOTE

The following exercise is designed to assess whether or not students have mastered (1) the concept of how the world population changes in size and (2) the basic terminology used so far. The purpose of the exercise is diagnostic. It is recommended that it not be graded, although you may if you wish. After completing the exercise, it is suggested that students read Confirmation Sheet 2.1.1 and be allowed to check their own answers.

Activity Booklet A

1. Let's see if you understand this. Turn to page 2 of your Activity Booklet. You'll find several questions about a make-believe planet called "Cufer." You'll have five minutes to answer the questions.

Confirmation Sheet

2. (After five minutes.) Here is a Confirmation Sheet with sample answers. Compare your answers with the Confirmation Sheet. Then ask any questions you might have.

* Natural increase = excess of births over deaths.

* Natural decrease = excess of deaths over births.

* Stable-size population or ZPG = births and deaths are equal.

* PRESENTATION *5 minutes* *

* WORLD TRENDS

I. Introduction

A. We've seen that the world population changes size through natural increase or natural decrease.

Transparency 3

B. This graph shows how the size of the world population has changed over time.

C. What can you say about this graph?

TEACHER NOTE

It may be necessary to point out that the vertical (top-bottom) axis relates to the size of the world population (in billions) and that the horizontal (left-right) axis relates to particular dates in history.

* For most of human history population growth was slow.

* In "modern times" growth has speeded up considerably.

* For most of history births out-numbered deaths, but balance (or margin) must have changed with modern times.

D. As you can see, the size of the human population has increased--and still is--increasing greatly.

E. Experts predict that, unless the balance of births and deaths changes greatly, our present world population of almost four billion will double with the next 30-40 years.

F. As we'll see, this has caused concern throughout the world.

G. This concern has led a number of countries to begin educating their people about the fact that the world population is growing so rapidly.

2. A case study: Today we will look at a TV script prepared by a group of educators and TV specialists in a country called Malaysia. This is a relatively wealthy country in Asia, not too far from Vietnam.

   A. A brief description and map of Malaysia is included in the Activity Booklet after the questions listed for this exercise (No. 3).

EXERCISE & ASSIGNMENT
15 minutes

EXERCISE 3 REVIEWED

1. Have students read the directions for exercise three and review these. questions:

   A. What has happened to the number and balance of births and deaths over time?

   B. Why is the human population growing so rapidly these days?

   C. What problems do the Malaysians see involved with rapid growth?

2. Have students write their answers to the questions for exercise 3 (either on a separate sheet of paper or in the booklet).

3. Have students hand in the Reaction Sheet at the end of the period or, if time is short, at the beginning of the period tomorrow.

TEACHER NOTE

You may want to ditto a reaction sheet and have students write on the ditto rather than in the book.

OPTIONAL ACTIVITY

* *If your school has TV production facilities you may want your students to generate their own scripts. This could be a class project or a group project for the unit. It is possible to run the activity as a contest with the best one or two scripts being produced. Students should be referred to the Factbook for additional factual information useful in writing their scripts. When completed, scripts should be examined for understanding of these points:*

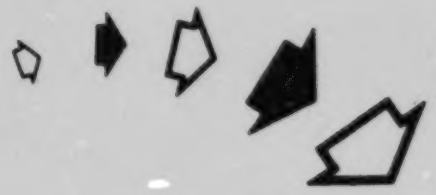
* *For most of history the number of births and deaths were about even. This served to inhibit population growth.*

* *Although balanced, the number of births and deaths were fairly high throughout history.*

* *Modern medicine upset the balance that existed. It lowered the number of deaths so quickly that a large gap was created between births and deaths.*

* *Births have not yet decreased from traditional levels.*

* *Consequently, the rate of natural increase was gone up, causing an increase in the rate of population growth.*



Teacher Version

Instructional Objectives

After this lesson you should be able to do these things:

1. Explain how births and deaths affect the size of the world population.

2. Give a definition for the following terms and use them in solving problems relating to world population growth.

   a. Natural increase.
   b. Natural decrease.
   c. Stable-size population.

3. Describe how the balance of births and deaths has changed throughout history and how this has affected population size over history.

4. Identify and explain how things such as advances in farming methods, medicine, nutrition, transportation and business management techniques have influenced the balance of births and deaths at various points in human history.

c. 1973, Indiana University Population Education Project

EXERCISE 1

* * *

Cufer is a make-believe planet much smaller than the earth. There were 300 million people living on Cufer in 1940.

All changes in the size of Cufer's population are due to births and deaths.

Look at the information in the table and then answer the questions on the next page. The questions test your understanding of these terms: Natural increase, natural decrease and stable-size population.

Information about Cufer

Time Period	Number of Births (millions)	Number of Deaths (millions)	Difference between Births and Deaths
1940 to 1950	30	40	-10
1950 to 1960	30	30	0
1960 to 1970	50	30	20

* * *

1. Which time period shows an example of natural increase?

   __1940 to 1950 __1950 to 1960 _x_1960 to 1970 __Can't Tell

2. How many people lived on Cufer at the beginning of 1960? (Write answer.)
   1940 population = 300 million
   Change 1940 - 1960 = -10 million = 290 million

3. When did Cufer have a stable-size population?

   __1940 to 1950 _X_1950 to 1960 __1960 to 1970 __Can't Tell

4. Which choice below best describes how Cufer's population changed between 1940 and 1970?

   _X_ Growth of 10 million due to natural increase.
   ___ Growth of 20 million due to natural increase.
   ___ Shrinking of 10 million due to natural decrease.
   ___ Stable-size population between 1940 and 1970.

5. Experts predict Cufer will grow by 20 million people between 1970 and 1980. If there are 29 million births between 1970 and 1980 how many deaths will there be? *Natural increase = Births - Deaths*
   20 million = 29 million - 9 million
   births deaths

   9 million

REACT! 2 EXERCISE * * *

DIRECTIONS: Read the TV script written for Malaysia. Then ask yourself each question listed below. Write a brief answer to each question based on your reading of the TV script. Questions and answers will be reviewed in class tomorrow. Your answers will be reviewed by the teacher and may be graded.

Question 1. What has happened to the number and balance of births and deaths through history? *For much of human history births and deaths were about equal in number so population growth was slow. Three events upset this balance by reducing the likelihood of death. These were the agricultural revolution in premodern times, the industrial revolution in the 18th-19th centuries, and the medical revolution in the present age. This last revolution has particularly altered the balance of births and deaths in the non-industrialized world of Asia, Africa, and Latin America. It has permitted a great reduction in death rates to occur since 1950. This has caused a large gap between birth and death rates and has produced a period of exceedingly rapid growth.*

Question 2. Why is the human population growing so rapidly at the present time? *Modern medicine, better food, sanitation and purer water have helped lower death rates within the last several decades in non-industrial world. Birthrates, however, have not dropped as rapidly. This has caused a gap between births and deaths and has lead to rapid growth.*

Question 3. What problems do the Malaysians see resulting from rapid population growth?

1. *World problems*
   - *pollution*
   - *crowding*
   - *hunger*

2. *Malaysian problems*
   - *need to provide social services to growing population*
   - *need to spend money for providing people with minimum amounts of food and shelter instead of being able to devote it to the economic development of the country.*
   - *pressures on quality of life resulting from growing numbers and urbanization*

NOTE: *These are sample answers. Actual answers may vary widely, but should be based upon things discussed in the reading.*

TEACHING ACTIVITY 2.2 COMPONENTS OF GROWTH FOR A NATION

PURPOSE

The purpose of this lesson is to:

1. Enable the student to understand immigration as an important determinant of the size of a geographic region.

2. Enable the student to understand the way in which a nation (or other fixed geographical unit) can influence the size of its population.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Describe how the size of the population of a nation changes and contrast this with how the population of the Earth changes size.

2. Define and use the following terms when explaining population size changes for a nation, state, city or town:

   a. immigration

   b. emigration

   c. net migration

   d. natural increase or decrease

3. Identify ways to influence the size of the population of a nation, state, city or town.

4. Describe, in general terms, the pattern of population growth for the United States.

TEACHING SCHEDULE

Review-Relate	5 minutes
Exercise 1	5 minutes
Exercise 2	5 minutes
Role-play	20 minutes
Discussion & Quiz	5-10 minutes
Assignment	2 minutes

LEARNING AIDS

Student Activity Booklet B and Role Play Materials. Reading Assignment 1 and Reaction Sheet (A Brief History of the Growth of the U.S. Population). Quiz

Teacher Note

This lesson requires the generation of a deck of "Alternative Action" cards for each student. Decks can be constructed using materials contained in the Appendix to the Activity Book as part of class activity or they may be assembled in advance. Teachers wishing to preserve the Activity Books may want to duplicate the decks using a ditto machine.

TEACHING PROCEDURE

* REVIEW-RELATE *5 minutes* *

- REVIEW PREVIOUS LESSON

1. What do we mean by the phrase, "natural increase?"

   - That portion of population growth that is attributable to the excess of births over deaths.

2. For most of history natural increase was small because births and deaths were almost in balance. What's caused natural increase to grow as it has in our time?

   - Medical science, better nutrition and improved sanitation have rapidly lowered death rates in poorer countries in the last 20 years while fertility has continued at traditional (high) levels.

3. From the bottle demonstration we derived an equation to show how the size of the world population depended on the balance of births and deaths. What is that equation?

   - Population Change = Births - Deaths

Transparency or Chalkboard

EXERCISE 1
5 minutes

* INTRODUCE TOPIC: NATION'S GROWTH

1. Overview: Point out that in this lesson students will learn that the way a nation changes size is more complicated than the way the Earth changes size. This is because it involves more than births and deaths.

TEACHER NOTE

Distribute Student Activity Booklet B if you have not done this previously. You may want to summarize information in Exercise 1 on the chalkboard or on a transparency.

2. Exercise 1: Have students turn to Exercise 1. Have them complete the exercise. This should take three to five minutes at the most. After five minutes, call for student responses to the question.

   A. Ask for answer: "From where did the 'extra' 3 million people come?"

      * It is the difference between the number of people who immigrated to the United States and those who left the U.S. to live in another country as citizens.

   B. Clarify growth components for earth and nation for students. Write the following information on the chalkboard and have students compare the two relationships.

      1. Population growth for the earth equals births minus deaths.

      2. Population growth for a country equals births minus deaths
         and
         immigrants minus emigrants

TEACHER NOTE

It may be necessary to define meaning of terms, immigrants and emigrants, for students.

   C. Discuss term: net migration. Point out to students that the difference between the number of immigrants and the number of emigrants is referred to as the net

migration.

NET MIGRATION = IMMIGRATION - EMIGRATION

D. For the U.S. net migration produced an increase in population size of about 3 million people over the period between 1960-1970 and accounted for about 16% of U.S. population growth.

* EXERCISE 2 *
5 minutes

* EXERCISE 2

1. Have students turn to Exercise 2 in their Activity Booklets. This exercise gives practice in considering and distinguishing growth components of a nation and of the Earth. It may be performed orally as a group activity or individually with discussion following completion of the exercise.

2. Have students answer questions and discuss misconceptions.

3. Summary: Summarize that a nation's population growth is the product of births, deaths, and net migration. Things which influence these events influence population size.

* ROLE-PLAY *
15 minutes

* EXERCISE 3: GROUP ROLE-PLAY AND DISCUSSION

1. Divide students into groups of two. Have students turn to Exercise 3. This exercise is designed to aid students in thinking about how a people, intentionally or unintentially, can influence the size of its population.

2. Have students read the directions for the exercise. Then have students use the materials in the Appendix to assemble a deck of "Action Alternative" cards. These cards describe population related events and are provided in order to stimulate student thinking about how population size can be increased or decreased.

3. After student Action Alternative decks are assembled, each team should examine and discuss items on cards as part of their policy development activity.

4. At the end of 15 minutes students should list those things they think Australia should do to increase its population size. For each item listed, an explanation should be provided identifying how the thing recommended is likely to effect population (i.e. will it increase births or deaths or net migration?). For example, a student might provide the following suggestion:

   Australia should lower the age of marriage in order to give people more years in which to bear children.

* DISCUSSION *5-10 minutes* *

* CLASS DISCUSSION

1. Initiate group discussion. The purpose of this discussion is to (1) allow students to share their ideas with one another, (2) identify inappropriate suggestions, and (3) classify suggestions according to whether they attempt to influence births, deaths, or net migration.

2. Using the chalkboard, list the things students would recommend Australia do to increase its population. As students offer their suggestions seek to have them explain how their suggestions would help Australia reach its population goal (e.g. pay costs of travel to make immigration easier and less expensive).

3. As each suggestion is listed have students identify if it is likely to effect births, deaths or net migration. Code each item with an appropriate symbol (e.g. Births = B, deaths = D, etc.).

4. After a number of things are listed have the class consider whether any suggestion seems (1) inappropriate, or (2) unethical.

TEACHER NOTE

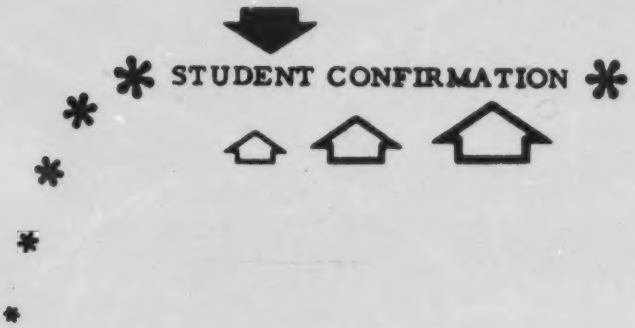
It is possible that students will begin debating the effectiveness of different actions. Such debates cannot be solved without research into the subject. If such a debate arises you may wish to offer the students an opportunity to do extra-credit research. It is also possible that students will not challenge any suggestions. If this occurs you may want to attempt to stimulate discussion. For example, you may want to point out that in modern times attempts to raise fertility through

incentive programs or family allowance schemes have not been very successful in countries such as France. Each item listed on the chalkboard is a potential topic for individual research to determine whether or not it is an effective way to stimulate population increase.

* ASSIGNMENT *5 minutes* *

* HOMEWORK ASSIGNMENT: READING I

1. Distribute reading to students on how the United States population has grown through its history. Ask students to complete Reaction Sheet attached to the Reading. This should be collected at the next class meeting.



EXERCISE 1: The questions for this exercise require you to know these things:

** World Population Change = Births minus Deaths

** Natural Increase is when a population grows because there are more births than deaths.

** Natural Decrease is when a population shrinks because there are more deaths than births.

** Stable-size population occurs when births and deaths are equal and when no change in population size occurs.

ANSWERS:

Question 1. Between 1960 and 1970 births out-numbered deaths. During this period the population grew because of natural increase.

Question 2. At the beginning of 1960 there were 290 million people on Cufer. There were 300 million people on Cufer in 1940. Between 1940 and 1950 the population shrank by 10 million so that 290 million people were alive by 1950. Between 1950 and 1960 births equalled deaths so that the size of the population stayed the same as it was in 1950.

Question 3. Between 1950 and 1960 births equalled the number of deaths on Cufer so its population did not change size. A stable-size population therefore existed between 1950 and 1960.

Question 4. Between 1940 and 1970 the population of Cufer increased by 10 million people. This increase was due to natural increase since there were 110 million births (30 30 50) during this period and only 100 million deaths (40 30 30).

Question 5. There must be 9 million deaths if there are 29 million births. Growth is the result of more births than deaths. If a population has 29 million births and grows by 20 million people, then 9 million people must have died for everything to balance.

Country and World Size

Exercise 2: The questions in this exercise require you to know these things:

World Growth = Births minus Deaths

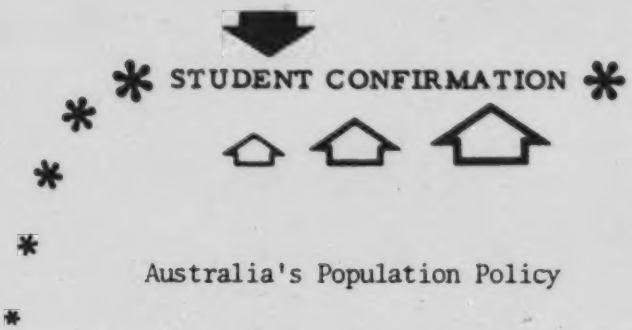
Growth for a country, city, town, etc. = { Births minus Deaths and Immigrants minus Emigrants (net migration) }

Question 1. Change in the size of the population for a country depends upon the number of births, deaths, and immigrants and emigrants for the country.

Question 2. Population Growth = Natural Increase + Net Migration.

Between 1870 and 1920 the U.S. grew by about 65 million. About 46 million of this was produced by natural increase. The remaining growth of 20 million (66 million - 46 million) was due to net migration.

Question 3. World population growth depends only on births and deaths. To find the size of the 1972 population for the Earth, you need the number of births and deaths that occurred between 1972 and 1973.



Australia's Population Policy

While many countries in the world are trying to slow their population growth, Australians are trying to increase theirs. In the face of a growing worldwide demand for skilled professional workers, the Australians have developed a policy of active recruitment to attract skilled people to settle in their country. Each year the Immigration Department decides how many immigrants to recruit according to:

a. its evaluation of Australia's national needs and objectives;

b. the availability of suitable immigrants;

c. the country's capacity to integrate immigrants effectively.

The information with which the Department works comes in part from feedback from the organizations helping to bring new immigrants to the country. Listed below are some of the organizations and policies acting to encourage immigration.

1. Australia has 'migrant offices' in 25 countries. These offices make contacts with potential immigrants in the peoples' own countries. The offices provide information on immigration to Australia and aid the people who choose to immigrate with their planning and move.

2. The Committee on Overseas Professional Qualifications is part of the Immigration Department. Its duties include:

   a. working with the 'migrant offices' to match immigrants' qualifications to Australian needs;

   b. it meets with the boards of some professional organizations. The Committee writes descriptive booklets which give background information on Australian professions and explains exactly what qualifications are necessary for the professions;

   c. it works with some Australian businesses to hire skilled people in other countries to come to Australia and take jobs.

3. The Australian government helps to pay the travel costs for some immigrants. This brings immigrants with many different backgrounds to the country.

4. The government provides temporary housing for new arrivals, in centers, hostels, or furnished apartments. All housing is on a short-term basis until the immigrants can arrange more permanent homes for themselves.

5. The government sponsors a variety of services for immigrants after they arrive in Australia. The government aid includes:

   a. help in finding permanent homes;

   b. social workers to help immigrants adjust to life in Australia,

   c. free English language courses for people who don't know English --day and night classes; correspondence school; radio and television classes; and intensive 8-week courses (the latter are offered only in major capitol cities and province centers);

   d. government-supported projects for teaching English to children who don't know how to speak it.

6. There are special employment standards for immigrants who have training in skilled labor. These standards determine the length of time a person must work as an apprentice before he is eligible to become a registered tradesman or skilled laborer in his field.

   a. The full formal apprenticeship training period is four years in Australia.

   b. Immigrant tradesmen who have finished three years' formal training in their home country need work only one year in Australia as an apprentice before they are eligible for registration as tradesmen.

Population Inquiries
3 - Population Distribution 1

TEACHING ACTIVITY 3.1 U.S AND WORLD URBANIZATION

PURPOSE

The purpose of this lesson is to:

1. Introduce students to current trends in U.S. and world population distribution.
2. Enable students to understand the advantages and disadvantages of continued urbanization.
3. Enable students to suggest how towns, cities, regions and states might influence the size and distribution of their population.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Define the terms: population distribution
   urbanization
2. Identify and describe overall patterns of population distribution in the U.S. and the world.
3. Identify some consequences of the present distribution of people in the United States.
4. Identify personal factors that influence a person's decision to live in one place rather than another.

TEACHING SCHEDULE

Review-Relate	5-10 minutes
Thought Experiment	5 minutes
Presentation	10 minutes
Exercises (1-3)	20 minutes
Assignment	

TEACHING AIDS

A/V	A/V Equipment
Transparency	Overhead projector
4. Boat analogy	
5. U.S. & world urbanization	

LEARNING AIDS

Student Activity Booklet C
Reading 2: Population Commission Report
Findings on Population Distribution

REVIEW-RELATE
5-10 minutes

* REINFORCING IDEA OF POPULATION MOVEMENT

1. Review components of national growth: births, deaths, and net migration.

2. Discuss student responses to questions related to homework reading assignment: A Brief History of the Growth of the U.S. Population.

   * Movement of people to U.S. from other countries has contributed to historical growth of the U.S.

   * At the present time, 16% of our growth each 10 years is from net migration.

   * The rate of population growth in the U.S. is slowing down, although more people are being added every year than ever before. This can be shown by an example:

2 million people	6 million people
@2 per cent	@1 per cent
40,000 people	60,000 people

3. Summarize: All populations change every day. People are born, die, and move from here to there. Yesterday's lesson showed how movement of people from one country to another influenced population size. Today students will look at what happens when people move about within a country--particularly what happens when most want to go to the same place.

THOUGHT EXPERIMENT
5 minutes

* DON'T ROCK THE BOAT

1. Ask students to pretend that the United States --or any other country--is a boat.

   A. When loading a boat with cargo (freight) it is important to locate the cargo so that its weight is distributed properly for the boat.

   B. If the cargo is not stored properly, problems can arise.

Transparency 4
(No overlay)

Transparency 4
(Overlay A projected)

2. QUESTION: Ask students what might happen if a storm caused the boat's cargo to shift position and all move to one spot while the boat was at sea.

   * The boat might sink because the unequal distribution of cargo might cause the boat to tip.

* PRESENTATION *10 minutes* *

* U.S. & WORLD URBANIZATION

1. Ask students what the term "urbanization" means to them.

   * The process by which people give up rural living and move to the city or to suburbs.

Transparency 5

2. Ask students to describe world trends in regard to per cent of people living in cities over 20,000.

   * Proportion of world's people living in cities has increased from 1800 to the present.

   * The rate of urbanization rose in 1900 and again in 1950.

3. Ask students to compare world trends with those of other countries on the graph.

   * Student responses should indicate understanding that all countries, even India, have been affected by forces leading to world-wide movement of people to city areas.

4. Ask students if they would be willing to say that the world and most of its countries were (or were becoming) urbanized?

   * Because a larger share of the world's people are moving to city areas, the world is becoming more urbanized.

5. QUESTION: Is the movement of people to urban areas "rocking the boat?" What are the consequences of having many people living together?

TEACHER NOTE

Students may give a variety of answers. Answers that claim that urbanization is (or is not) harmful involve factual and value components. You may want to point this out. Student assertions of facts should be treated as hypotheses and can serve as the basis for individual or group research assignments.

* Positive consequences:

  - Communication and transportation are easier.
  - Services are often easier to obtain and less expensive (on a per person basis).

* Negative consequences:

  - Congestion and pollution may result.
  - Government may be more difficult.
  - Conflict and controversies may be more numerous since people interact more frequently.

* EXERCISE 1 *10 minutes* *

* STUDENT RATING EXERCISE 1

1. Distribute Student Activity Booklet C. Have students individually or in groups of two complete the first exercise. Students are to indicate advantages and disadvantages of living in large cities, medium sized cities or suburbs, and rural areas.

2. Discuss student ratings and advantages and disadvantages students see involved in living in different areas.

* EXERCISE 2 *5 minutes* *

* STUDENT RATING EXERCISE 2

1. Have students turn to Exercise 2. This deals with student short term and intermediate term housing preferences.

2. Tabulate student responses on chalkboard.

3. Discuss student responses in terms of:
   (a) geographic location
   (b) number of migrations contemplated
   (c) similarities or differences in student choices.

* EXERCISE 3 *
5 minutes

* STUDENT EXERCISE 3

1. Have students turn to Exercise 3. Ask them to compare living preferences of people in the survey to see if people tend to live where they say they want to live.

2. Discuss student responses.

   A. Question 1: Where do people live?

      * Most people (61%) live in small or medium-sized cities or rural areas. About 1/4 live in large cities or suburbs.

   B. Question 2: Do people live where they say they want to live?

      * No! 34% want country setting. 30% want small town or city. Only 43% live in either.

TEACHER NOTE

You may want to point out that a Wisconsin survey showed many people who wanted to live in the country also wanted to live within easy commuting distance of a large metropolitan center (i.e. large city, etc.). This fact can be explored in terms of wanting to enjoy the advantages of the city without wanting to incur its disadvantages. It also assumes ready transportation and does not take into account energy shortages, limits on gasoline, etc.

* EXERCISE 4 *
1 minute

* STUDENT EXERCISE 4

1. If time permits, you may want to have students complete Exercise 4 in class. Otherwise, it should be treated as a homework assignment useful for the students' personal benefit. This means that the exercise should not be collected or discussed unless students express a preference for having it discussed.

* ASSIGNMENT *
2 minutes

* ASSIGNMENT

1. INTRODUCTION: The purpose of this assignment is to aid students in dealing with issues relating to population distribution and to stimulate thought about the advantages and disadvantages of population redistribution.

2. STATEMENT OF PROBLEM: Point out to students that the recent report of government study group, the Commission on Population Growth and the American Future, identified a number of issues they felt could be resolved by encouraging people to move to rural areas, to small existing towns and cities, and to new cities which the study group encouraged to be built in scattered parts of the United States.

3. ASSIGNMENT: Distribute Reading No. 2 for homework.

   A. Tell students to read for homework the summary of the Commission's Report as it relates to population distribution.

   B. Students should be prepared to discuss the questions asked on the first page of the reading booklet at the next class meeting. Written answers to the questions should be turned in at that time.

TEACHING ACTIVITY 3.2 U.S. POPULATION DISTRIBUTION

PURPOSE

The purpose of this lesson is to:

1. Familiarize students with the findings of the Commission on Population Growth and the American future in regard to population distribution.
2. Enable students to deal with some of the issues inherent in suggestions to modify the distribution of people in the United States.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Identify and describe current patterns of population distribution in the United States and the world.
2. Identify some consequences of the present distribution of people in the United States.
3. Identify how the distribution of a population can be influenced, either directly or indirectly, through governmental actions or policies.
4. Identify things in American society that might encourage or discourage efforts to redistribute the United States population.

TEACHING SCHEDULE

Review-Relate	5 minutes
Discussion of Homework	10-20 minutes
Selective Activities	20-30 minutes

LEARNING AIDS

Objectives Sheet (Optional)
Reading 2: Report of the Commission
Optional Activities
1. "How'd You Like To Be Xeroxed?" reading/discussion exercise

2. Alternative Approaches to Population Distribution: An Exercise
3. Politics of population: "What's In a Number? Ask New York!"
4. "Where Do You Want to Go?" reading/discussion exercise
5. "The City" (a view of the future?)

TEACHING PROCEDURE

* REVIEW-RELATE *5 minutes* *

* INTRODUCTION: MAJOR POINTS

1. REVIEW: Yesterday we saw a worldwide trend existed that resulted in more and more of the world's people living in cities. We also discussed some of your preferences and thoughts about where you wanted to live. Today we'll consider how individual decisions about where to live in the U.S. are producing a heavily urbanized pattern of distribution. We'll consider the implications of this, and take up, to some degree, what if anything should be done about how people in the U.S. are distributed.

2. OBJECTIVES: At the end of the lesson you should be able to describe existing distribution trends in the U.S. and talk about the implications of these as seen by the Commission on Population Growth and the American Future.

TEACHER NOTE

Specific instructional objectives for the lesson are printed on an optional objectives sheet. This may be distributed and discussed at this time if you desire.

At this time you may also want to collect student assignments from the night before. Since students may want to use these during the discussion of the assignment, an alternative procedure would be to collect them at the end of the period.

* DISCUSSION *10-20 minutes* *

* DISCUSS ANSWERS TO ASSIGNMENT

1. HOMEWORK QUESTIONS: The reading booklet lists five questions that students are to answer. These questions touch upon basic issues raised in the Commission report. Questions 1-3 have answers that completely depend upon information contained in the report. Questions 4-5 require the student to generate a response and to apply his or her

thinking to information presented in the report. Since questions 4-5 require the student to go beyond restating the Commission's findings, they require careful consideration during the discussion and when being evaluated for acceptability.

A. Question 1: Where do people tend to live in the U.S.?

* 69% live in urban regions (see page 1 of reading).

B. Question 2: Where do people say they want to live in the U.S.?

* In a national survey conducted for the Commission only 14% of the people said they preferred to live in a larger city or suburb (27% did). Most people preferred a smaller town or rural lifestyle (see page 3).

C. Question 3: What type of life does the Commission see Americans leading 30 years from now?

* 85% of the people will live in metropolitan regions that will cover 1/6 of the land. These will be in a few strips along the coastal regions and between Chicago and St. Louis in the midwest.

D. Question 4: How might things such as lack of gasoline or lack of drinking water influence continued growth of urban regions?

* Might slow their growth. People might become more disperse or (more likely?) more concentrated. Shortages might cause concentrated cities like New York to prosper and spread-out cities like Los Angeles to decline.

E. Question 5: A survey found that 54% of the American people thought that distribution of the U.S. population was a serious problem. What are some disadvantages of having a metropolitan population?

* Pollution, congestion, crime, expensive housing, high cost of living.

What are some advantages of having a metropolitan population?

* Economy of large scale operations possible, cosmopolitan atmosphere, low per capita cost for public services (in moderate size cities), economically innovative, many things to do.

Do you think the distribution of the U.S. population is a "problem?" Why or why not?

* This depends on one's values, ultimately. Attempt to draw forth students' positions as well as the facts upon which the positions are based. Seek to examine alternative views.

* SELECTIVE ACTIVITIES *20-30 minutes* * * SELECTIVE ACTIVITIES

TEACHER NOTE

This section provides a number of options. It is designed to be flexible and allow you to tailor content and process to the needs and interests of your students. Several sets of materials are available for use in this section. Topics considered relate to (1) local growth/no growth issues, (2) policy options for redistributing population, and (3) the effect.

Materials can be distributed to students and discussed in a variety of ways:

-- *One reading may be given to all students to read and discuss as a class.*
-- *Separate readings can be given to different groups of students to work with in small group sessions. Individual groups can then report to the class on their reading and the group's reaction to it.*
-- *Individual students may be allowed to select from the alternatives the reading (or readings) that appeal to them. Students can then report--in oral or written form--on their reactions to the reading and the issues they see as being involved in the reading.*
-- *Various readings (e.g. "How'd You Like to be Xeroxed?") can be used as the basis of role-playing activities. Students can act out controversies, then discuss issues involved, alternative solutions, strategies for producing results desired, etc.*

OPTION 1: Local growth/no growth controversy: a case study of Xerox Corporation's attempt to build an executive headquarters in Greenwich, Connecticut. This is a reading that can be followed by a discussion and individual research into issues relating to problems of suburban growth, rural decline, and the rights of an area (town, city or state) to attempt to control the size of its population.

OPTION 2: Policy alternatives for influencing population distribution. Population policies may range from allowing individuals complete freedom of movement (as guaranteed by the Constitution) to complete non-movement, or even involuntary migration. In the history of the United States, a variety of things have been done to influence population distribution. These range from use of persuasion to direct coercion. This exercise presents a typology of policy alternatives along with an historical example of each. The exercise can be used for discussing merits of different types of policies and as a springboard for further research. It is also useful for value clarification activities.

OPTION 3: Policies of population shifts. Size and distribution changes are more important than many people realize. Ghost towns are phenomena many students are familiar with. Changes can be relatively small, yet important, even for a state as heavily population as New York. This exercise presents information on how a population outflow has begun to concern New York State officials because of its effect on Revenue Sharing money. The article can serve to show the impact of immigration and emigration, the importance of accurate counts, and how political issues are tied up with numbers of people. The exercise can be broadened into an exploration of other effects a net gain or loss of population may have on a geographic area. Of interest in this regard is the nature of people being gained or lost and how it affects the area into which they move, as well as the area they left (e.g. "brain drain" phenomenon, black emigration from the South to Northern cities, concentration of medical doctors in large cities, etc.).

OPTION 4: The Constitution and Population Distribution Policy. This exercise presents a brief, fictional story about a young person who is unable to move to Colorado because of no growth laws in that state. The purpose of the exercise is to stimulate discussion about the personal and Constitutional issues involved in limiting the size of a community.

OPTION 5: "The City." This is a science fiction story about life in New York City many centuries into the future. The view of the evolution of the "City" and the advantages and disadvantages of life in a "City" such as that in the story offer many possibilities for student comment. An interesting contrast of alternative views of the future can be drawn by having students read the poem, "All Watched Over by Machines of Loving Grace," that is in the resource section of the Teacher Guide. Students can be encouraged to express (in writing, song, film, etc.) their views of the future, describing the process by which their future will evolve. Do students approve of continued urbanization? How might urbanization be made less damaging to the natural environment? How might the social and psychological stresses associated with urbanization be reduced? Such topics provide the basis for discussion and individual research.

TEACHING ACTIVITY 4.1 WHAT ARE VALUES?

PURPOSE

The purpose of this lesson is for students to become aware that facts and values influence decision-making. To understand a person's behavior or position on an issue, it is important for students to understand the reason underlying that position. Students are given practice in identifying underlying reasons and in expressing underlying reasons in regard to their own positions on important social issues.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Discuss how values influence the manner in which people interpret events.

2. Identify factual statements, value statements, and incomplete value statements.

3. Define in a manner that corresponds to the definition provided in this lesson, these terms:
   * fact
   * factual statement
   * value
   * value statement
   * incomplete value statement

TEACHING SCHEDULE

Review-Relate	5 minutes
Perception Exercise	5 minutes
Filmstrip: Focus on Values	10 minutes
Discussion and Application Exercise	15 minutes
Post-test	10 minutes
Optional Activity	
Assignment	

TEACHING AIDS

A/V
Perception Exercise
Pictures: Face at window
Person on ground
Filmstrip: Focus on Values
Teacher Guide for Filmstrip

A/V Equipment
Filmstrip projector

LEARNING AIDS

Student Activity Booklet D
Post-test for filmstrip
Reading 3: Values Make a Problem

TEACHING PROCEDURE

* INTRODUCING VALUES

* REVIEW-RELATE *5 minutes* *

1. Relate that the class has acquired a factual basis for considering some of the aspects related to change in population size, growth and distribution.

2. In today's lesson, students will consider another aspect of population change: the question of values.

   A. Point out to students that values influence our perception of the changes and events around us.

   B. Although most students probably have a notion of what a value is, this lesson will provide a more sophisticated and powerful conception of the term. It will also provide students with a basis for beginning to systematically think about their own beliefs and preferences and the manner in which these influence the students' interpretation of events and issues.

3. Reveal objectives (optional): You may want to reveal the objectives for this lesson at this point. If so, tell the class that after this lesson students should be able to:

   * Talk about how values influence the way we interpret events.

   * Identify different types of statements as factual, value, or incomplete value statements.

   * Provide a definition for each type of statement: factual, value, and incomplete value.

A. Point out to students that they should use the objectives as a guide to studying and as a self-test.

TEACHER NOTE

Student versions of these objectives are printed on the (optional) Student Objectives Sheet. This may be given to students at this point if you wish them to have written copies of the objectives.

* EXERCISE *10 minutes* * * VISUAL PERCEPTION EXERCISE

TEACHER NOTE

The following activity is designed to show students that people interpret the same thing in different ways. It has no correct answers. Just as we "see" differently, so do we interpret events differently. Although why this is so is complicated and not well understood, the concept of values is helpful in providing at least a partial explanation to the question of why people interpret events in different ways. The visuals for this activity are the first two frames on the filmstrip. Some classes also have printed versions of these pictures or versions printed on overhead transparencies. If you use the filmstrip version of the visuals, begin this part of the lesson by turning on the filmstrip machine. NOTE: Do not turn on tape recorded at this point.

1. Have students take out a sheet of paper and a pencil. Project or distribute one of the two pictures.

2. Have students write down what they see and what they think is happening.

   A. Possible interpretations of Picture 1 (window):

      * Man or woman couldn't sleep--is depressed.
      * Person looks suicidal.
      * Person is watching rain.
      * Person is an artist.

   B. Possible interpretations of Picture 2 (2 people):

      * One person helping another.
      * Robbery.
      * Person fell.

3. Have volunteers describe what they saw in the picture. Different interpretations should be elicited.

4. Ask students to decide which of possible interpretations best explains what is happening. (The picture should be shown again.)

   * Students should disagree as to the best description.

5. Ask students why they think people saw a different things happening.

   * People look at things in different ways because of upbringing, experiences, values, etc.

6. Ask students if this tendency for people to see things differently affects perception of public issues--for example, existence of a population "problem."

   * Yes--people disagree over a variety of things, including whether or not something such as population is a "problem."

   * Among the reasons people evaluate things differently is that they have different values.

7. Class is about to see a filmstrip that shows how values influence our behavior.

8. After the filmstrip the class should be able to:

   A. Identify values implied by certain behaviors.

   B. Identify statements as being factual statements, value statements, and incomplete value statements.

* FILMSTRIP PRESENTATION *10 minutes* *

* FOCUS ON VALUES FILMSTRIP

1. Distribute workbook and reveal objectives for filmstrip.

   * Help students infer values from behavior.

   * Identify statements of fact and value, as well as incomplete value statements.

2. Present filmstrip: Focus on Values.

TEACHER NOTE

For further information concerning the rationale for the filmstrip's definition of values and a discussion of additional exercises that may be used, see the supplementary guide for the filmstrip.

3. Discuss basic definitions provided in the filmstrip:

   * Value statement: (belief, preference, or prescription)
   * Factual statement: (can be tested for accuracy)
   * Fact: (something that has been tested for accuracy and found accurate)
   * Value: (something that undergirds a person's interpretation of an event and motivates a certain type of behavior)

* EXERCISE *15 minutes* *

* PRACTICE EXERCISES

1. Exercise 1: Have students turn to Exercise 1 and complete it. Allow students to complete the exercise. Confirmation Sheets are provided in the Activity Booklet so students can self-correct their exercises.

TEACHER NOTE

You may want to discuss each exercise individually, particularly if class is unlikely to attend to the Confirmation Sheet. It is suggested, however, that class be given an opportunity to attempt self-correction.

2. Exercises 2-4: Repeat above procedure with the remaining exercises.

* POST-TEST *10 minutes* *

* POST-TEST

1. After the exercises have been completed and discussed, administer the post-test for the Focus on Values filmstrip.

TEACHER NOTE

These may be self-corrected by the students or collected and corrected by the teacher. If collected, the tests should be returned at the beginning of tomorrow's lesson. Tomorrow's lesson will provide students an opportunity to apply the skills taught in the filmstrip. Therefore, it is important that students have begun to master the filmstrip's objectives. Additional exercises are available in the guide to help students needing additional practice.

OPTIONAL ACTIVITY

* *OPTIONAL DISCUSSION*

If time permits, you may want to discuss with the class why it is important to consider the factual and value laden aspects of behavior (in decision-making).

An alternative strategy leading to the same discussion is outlined below.

1. *Ask students to vote on whether or not they think population growth in the U.S. is a problem.*

TEACHER NOTE

Have students respond by raising hand. Total "yes" and "no" votes and place on chalkboard.

2. *Ask students if they already have made up their minds on the issue: why they should bother to study it. Can their ideas change? If so, how?*

   * *Preconceived ideas may change with an examination of facts, values, and different points of view.*

3. *Have students consider the advantages and disadvantages of being aware of those things which influence their thinking about and evaluation of a person, place or thing.*

   * *Advantages:*

   - *Helps know ourselves better.*
   - *May look at things more objectively.*
   - *Decisions may be more appropriate.*

* *Disadvantages*

  - *Truth is sometimes "painful."*
  - *May realize inconsistencies in our behavior.*
  - *Takes time to develop understanding of one's self.*
  - *May never truly understand oneself.*

ASSIGNMENT

* *OPTIONAL ASSIGNMENT*

Reading 3: Values Make A Problem

1. *Have students read the selection in Reading 3 and answer the exercise questions. This assignment attempts to demonstrate that "social problems" depend on a variety of factors, including individual and group values.*

Filmstrip

Focus on Values

Audio

1. Title

2. Which of these two captions is best for this picture:
   a. Americans deserve the best of everything.
   b. Americans eat and drink too much.

3. Do you think everyone in your class chose the same caption? Probably not. People differ on how they judge things.

4. Sometimes differences in judgments don't matter very much (pause).

5. Sometimes differences in judgments matter a great deal.

6. In this filmstrip, we are going to talk about judgments and about how facts and values are combined in decision-making. Although both are equally important, our emphasis will be on values.

7. At the end of this filmstrip, you should be able to identify factual statements, identify value statements, and express your own values.

8. Every day, people are faced with decisions.

9. Some decisions are based on what we think are facts, whether they are or not.

10. Facts are statements that can be tested for accuracy.

11. Is this a factual statement? (Long pause.)

12. Although the man is not six feet tall, we can measure his actual height. Because we can test the statement for accuracy, its is a factual statement.

13. Generally, there are three methods that a person can use to judge if a factual statement is accurate: observation, reference, experimentation.

14. Sometimes, the decisions we make involve behavior. Often these relate to important ethical standards --things we think are good or bad, right or wrong.

15. Sometimes our decisions involve taking a position on important social issues.

16. Whenever we act (long pause),

17. try to make a decision (long pause),

18. or take a position on an issue in which we are emotionally involved, values come into play.

19. But what are values? People use this term every day, but even experts sometimes get confused.

20. Values are deep-seated beliefs about which we have strong emotions. They are not easily changed.

21. Unlike facts, values can not be tested for accuracy.

22. More importantly, values usually influence our actions (long pause).

23. Acting on one's values is not often easy. Consider George. Did he take the easy way out? No. If he had believed that lying is okay, or that it will keep you out of trouble, he never would have admitted cutting down the cherry tree. Although we can't be sure that George really believes that people should always be honest, he acted as if he valued honesty.

24. We have just seen that looking at a person's behavior is one way of identifying possible values.

25. Another way is to ask a person what his values are.

26. Still another way to find out what a person's values are is to listen to what is said and the reasons given for doing certain things or taking certain positions.

27. Unless we know why a person feels the way he does about an issue, we can never truly understand the person's position or determine his values.

28. Lizzie Martin believes women and men should share child care responsibilities. Dr. Wellbaby believes that women who are pregnant should not smoke because it will endanger the health of the mother and possible injure the child. Which person provides you with a deeper understanding of their position? (Long pause.)

29. Lizzie could have based her position on any of a number of reasons--we can't be sure. We don't really understand why she feels the way she does.

30. However, Dr. Wellbaby based his position on a concern for the wellbeing of a potential mother and child. You may not agree with Dr.

Wellbaby, but at least you know where he stands. Without knowing his reasons, concern for mother and child, we would not have fully understood his position, and might have interpreted it incorrectly.

31. When dealing with decisions involving values, it is important to consider what a person thinks is good or bad, right or wrong. The reasons for his decisions.

32. Does this statements express a value position? (Pause) Yes. But does it give a reason? (Long pause.)

33. No. Complete value statements provide a statement of position and a reason.

34. Is this a complete value statement?

35. No. The statement is not a complete value statement because a reason has not been given to support the position that family planning is bad.

36. Is this a complete value statement? (Pause.)

37. It is a complete value statement. It provides a reason, "Because the U.S. birth rate has decreased," to justify the position that "There should be no talk of overpopulation in America."

38. Is this a complete value statement? (Pause.)

39. Yes. It is a complete value statement because it states a position and gives a reason for that position.

40. Make this statement into a complete value statement by supplying a reason. (Pause.)

41. "You should not steal" states a position. In order to make the statement a complete value statement, you should have provided a reason. Sample reasons you might have given include: stealing is against the law, honesty is the best policy, or stealing is a sin.

42. Write a complete value statement to go with this picture. (Long pause.)

43. There is no "right" answer to this exercise. However, the statement you wrote should contain a statement of position and a reason.

44. Think of something important to you--something that you feel strongly about. Can you express it as a complete value statement? (Pause.) If you can, you will be able to state your position and give a reason for it.

45. In this filmstrip, you have seen that values influence decisions that people make.

46. By understanding a person's values, we can better understand the positions the person takes on issues and the reasons for a person acting as he does.

47. Decisions, however, involve a balancing of facts and values.

48. We have tried to show that a complete value statement reduces misunderstanding. (Long pause.)

49. Have you considered your values and the reasons that you hold them? Perhaps it is time for you to focus on values.

End

Credits

********** TEACHER VERSION TEACHER VERSION TEACHER VERSION TEACHER VERSION **********

POSTTEST

TEACHER VERSION*****TEACHER VERSION****TEACHER VERSION*****

FOCUS ON VALUES POSTTEST

PART I

Directions: In the space provided, write the word FACT, for factual statements, VALUE for value statements, and INC for incomplete value statements.

FACT 1. The lower class in the U.S. has higher fertility rates than the upper class in the U.S.

VALUE 2. Since the U.S. is becoming overcrowded, the U.S. government should not allow any more immigration.

INC 3. Individual freedom must be sacrificed sometimes for the benefit of society.

VALUE 4. San Francisco, California is the worst place to live because the city is built on top of the San Andreas Fault.

INC 5. Immunity from prosecution is an unjust judicial policy in America.

FACT 6. Dick Gregory has stated that population control policies would be "Black Genocide."

VALUE 7. Abortion and voluntary birth control are better means of solving population problems because these policies allow people to use their own conscience to make decisions.

FACT 8. An increase in the use of medical technology in undeveloped countries has decreased mortality rates and therefore has contributed to population growth.

INC 9. The younger generation has rediscovered the best way of living --communes.

INC 10. Society's time and money should not be spent on prison reform.

Go to the next page.

PART II

Directions: Rewrite any two of these three incomplete value statements so that they become complete value statements.

1. Students should not be forced to go to school. (SAMPLE RESPONSES MIGHT BE:)

.....BECAUSE.....it violates their rights to free speech and action

.....industrial societies provide alternative forms of education other than schools so that there is no need for students to be compelled to go to school.

2. Abortion is wrong. (SAMPLE RESPONSE MIGHT BE:)

BECAUSE.....it does not permit a potential life to be actualized

3. Companies that cause air and water pollution should be punished.

(SAMPLE RESPONSE MIGHT BE:)

BECAUSE.....pollution is unhealthy for humans and animal and, consequently, companies must be held accountable for the negative effects they produce on life.

NOTE.---THE ABOVE RESPONSES ARE SAMPLES. ACTUAL STUDENT RESPONSES MAY VARY SIGNIFICANTLY. ALL RESPONSES HOWEVER SHOULD PROVIDE A REASON TO SUPPORT THE POSITION STATED IN THE QUESTION. REASONS MAY CONSIST OF FACTUAL STATEMENTS OR THEY MAY BE VALUE POSITIONS.

PART III

Directions: Write a complete value statement that expresses your thoughts for any one of these issues:

NOTE.----ALL RESPONSES SHOULD CONTAIN A POSITION STATEMENT AND A STATEMENT OF REASON SUPPORTING THE POSITION. REASONS MAY BE FACTUAL OR VALUE RELATED STATEMENTS.

1. If the world has a population problem.

2. If the United States has a population growth problem, a population distribution problem, or no population problem.

3. If the United States has an energy problem.

4. If understanding other people's value positions and the reasons for their positions is important or unimportant.

POSTTEST ·····react

FOCUS ON VALUES POSTTEST

PART I

Directions: In the space provided, write the word FACT, for factual statements, VALUE for value statements, and INC for incomplete value statements.

____1. The lower class in the U.S. has higher fertility rates than the upper class in the U.S.

____2. Since the U.S. is becoming overcrowded, the U.S. government should not allow any more immigration.

____3. Individual freedom must be sacrificed sometimes for the benefit of society.

____4. San Francisco, California is the worst place to live because the city is built on top of the San Andreas Fault.

____5. Immunity from prosecution is an unjust judicial policy in America.

____6. Dick Gregory has stated that population control policies would be "Black Genocide."

____7. Abortion and voluntary birth control are better means of solving population problems because these policies allow people to use their own conscience to make decisions.

____8. An increase in the use of medical technology in undeveloped countries has decreased mortality rates and therefore has contributed to population growth.

____9. The younger generation has rediscovered the best way of living --communes.

____10. Society's time and money should not be spent on prison reform.

Go to the next page.

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Directions: Rewrite any two of these three incomplete value statements so that they become complete value statements.

1. Students should not be forced to go to school.

2. Abortion is wrong.

3. Companies that cause air and water pollution should be punished.

PART III

Directions: Write a complete value statement that expresses your thoughts for any <u>one</u> of these issues:

1. If the world has a population problem.

2. If the United States has a population growth problem, a population distribution problem, or no population problem.

3. If the United States has an energy problem.

4. If understanding other people's value positions and the reasons for their positions is important or unimportant.

TEACHING ACTIVITY 4.2 VALUES RELATED TO POPULATION: IS THERE A PROBLEM?

PURPOSE

The purpose of this lesson is to:

1. Provide additional practice in identifying factual statements, value statements, and incomplete value statements.
2. Surface some of the value dimensions involved in deciding if population changes represent a "problem."
3. Enable students to become aware of some of their own values concerning population issues.

LEARNING GOALS

After completing this lesson, the student should be able to:

1. Classify a complex statement as being a factual statement, an incomplete value statement or a complete value statement.
2. Identify the main issue treated, or position taken, in a series of complex statements dealing with population.
3. Compare complex statements according to the issue treated and/or position taken in the statements.
4. Present one's personal position (on a tentative basis) in regard to the existence of a population problem and the reasons for this position.

TEACHER NOTE

This activity may require one or two days for completion. The time will vary depending upon (1) how much time is devoted to review and discussion of the Focus on Values posttest, and (2) how much time is devoted to analyzing the Population Pendulum booklets.

TEACHING SCHEDULE	Quiz Review	10-30 minutes
	Review-Relate	5 minutes
	Discussion	10-20 minutes
	Small Group Exercise	25 minutes
	Discussion	10-20 minutes
	Assignment	5 minutes
TEACHING AIDS	A/V	A/V Equipment
	Transparency (Optional)	Overhead Projector (Optional)
	Guide to Focus on Values filmstrip	
LEARNING AIDS	Focus on Values posttest (from previous lesson)	
	Population Pendulum booklet	
	Student Activity Booklet E	
	Optional Readings	
	"Do We Really Need a Population Policy?"	
	"What Makes a Problem?"	

TEACHING PROCEDURE

* QUIZ REVIEW *10-30 minutes* *

* QUIZ REVIEW

1. Review answers to Focus on Values posttest.

   A. Distribute posttests (if you collected them at end of previous lesson).

   B. Review the answer to each question. Encourage students to ask any questions they might have.

   C. Point out that an understanding and ability to identify statements of facts and values is necessary for dealing with complex social issues.

TEACHER NOTE

The answer sheet for the posttest is included in the guide to the filmstrip. It is also included in the section for the previous lesson (4.1). The posttest review can be handled in several ways. You might want to review the definition of statements of facts, values and incomplete value statements. This can be followed by a complete or selective review of the questions on the posttest. Students whose performance on the posttest was less than satisfactory should be given group or individual instruction about the contents of the filmstrip.

REVIEW-RELATE
5 minutes

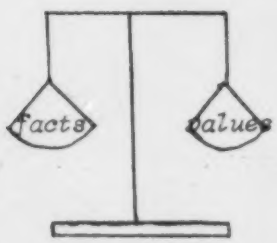
* LESSON INTRODUCTION

1. Overview of Task: Relate to students that in today's lesson they will consider what a number of people have said about population issues.

   A. Students will see that there is a variety of opinion.

   B. In looking at the various statements students should consider the position(s) taken in each and the reason(s) provided for the positions taken.

2. Draw balance (scale) on chalkboard. One pan should contain "facts." The other pan should contain "values."



illustration

   A. Facts and values are ingredients of informed decisions or judgments.

   B. Because facts and values differ, judgments differ.

   C. If people are explicit about facts and values involved in decision-making, people can better understand their positions. Being explicit also allows for errors to be corrected or for new information to be made available.

DISCUSSION
10-20 minutes

* WHAT IS A PROBLEM?

1. Consider one or two "springboards" for discussion:

   A. Read the nursery rhyme below, or discuss why Canada is trying to increase its population at the same time many people in the U.S. favor ZPG.

"There was an old woman
who lived in a shoe.
She had so many children
she didn't know what to do.
She gave them some broth
without any bread,
she whipped them all soundly
and put them to bed."

2. Depending on springboard used, either ask students if the woman in the nursery rhyme had a problem or consider why the U.S. and Canada have different perceptions regarding population.

   A. Consider <u>why</u> students think they way they do regarding the topic of discussion.

   B. Consider what things determine students' perception of whether or not a problem exists.

      * Problems are judgments based on a perceived gap between what a person thinks is right, proper or desirable, and what the person perceives as reality.

      * A problem is a perceived gap between the "real" as perceived by a person or group, and the ideal. Since the gap is subjective it may be real or imaginary. If the person or group thinks it is there, however, that is sufficient for a "problem" to exist.

3. If problems are subjectively derived, is the assertion that there is a problem, for example, a "population problem" a statement of fact or value?

   * It is a statement of value. It expresses a person or group's judgment about something.

   * A problem is not a fact per se. It reflects an interpretation of reality, real or imagined, in relation to a person or group's standards of judgment.

<u>TEACHER NOTE</u>

Values are a complex topic. Even experts disagree over how to discuss values. There are even disagreements over what values are. Some experts see them as being equivalent to attitudes or opinions, other experts see them as being distinct phenomena, not akin to attitudes or opinions. Because the topic is complex, some students will undoubtedly become confused. You will want to structure your presentation to take into account the needs, interests, and abilities of your students. An optional reading is included with this lesson for teachers who would like to explore "what makes a problem" in more detail. The reading can also be used for considering whether a U.S. population policy is advisable.

4. Have students consider why people might disagree over the existence of a population "problem."

   * Different values and access to different amount, kind and quality of information may lead to different perceptions.

   A. Over what things might people disagree in regard to population?

      * If there is a problem, and whose it is (i.e. India's? the U.S.'? the World's?).

      * The nature of the problem, if there is one (e.g. overcrowding, pressures on standard of living, or ecological destruction are things some people link with population. Others claim population does not relate to these things in any important way.).

      * What can/should be done about population, if anything, and by whom (e.g the U.S.? the United Nations? Each individual country?)?

5. How might a person decide which of several possible interpretations is the most appropriate?

   * Consider accuracy of factual statements (reasons) involved in the interpretations.

   * Consider the values used to weigh information when coming to a position.

* EXERCISE *25 minutes* *

* SMALL GROUP EXERCISE

1. Tell students they are to confront the question of dealing with alternative interpretations of whether or not a population problem exists.

   A. Students are to see what each author says about population.

   B. Students are to examine each author's position and his reason(s) for that position (if any is given).

2. Divide students into groups of two to three. Attempt to have students of varying ability levels working together. In this way students can help one another with vocabulary.

POPULATION PENDULUM
(10 minutes)

3. Distribute Population Pendulum booklets: give each group of students a Population Pendulum booklet to share among themselves.

TEACHER NOTE

Each Pendulum booklet contains a series of illustrations and quotations dealing with population-environmental issues. The quotations are by leading authorities or spokespeople in the population or ecology areas. In the event students are curious as to who the people are, a brief biography is provided below.

-- *Barry Commoner is a biologist. He is founder of the St. Louis Committee for Environmental Information. He has written a number of books on science and ecology.*

-- *Rene Duboe is a Pulitzer Prize-winning author and biologist.*

-- *Paul Ehrlich is a biologist and a leading spokesman for the ecology movement. Author of The Population Bomb, he has represented a crisis-oriented approach to the topic of population.*

-- *Julian Simon is a social scientist and economist at the University of Illinois.*

-- *Ben Wattenberg is a former White House aide during the Johnson Administration. He is the author of a number of books and articles dealing with social issues.*

-- *Harold F. Dorn (deceased) served as a past president of the Population Association of America. He was a social scientist who, during his career, served with the U.S. Public Health Service.*

A. Allow students ten minutes to skim the booklet and to talk about the quotations. Students should look for similarities and differences in positions and reasoning among the various quotations.

B. After ten minutes, ask students to briefly consider if the authors seem to represent a single position or a variety of positions.

* There are a variety of views contained in the booklet.

STUDENT ACTIVITY BOOKLET E
(15 minutes)

4. Distribute Activity Booklet E to students so that each student has a personal copy.

A. Read directions for the exercise to the students and answer questions about procedures.

1. Students should work in groups of two or three.

2. Each statement must be analyzed as to the type of statement it is (i.e. factual, complete value statement or incomplete value statement), the position reflected in the statement and the reasons (facts and issues) considered.

B. Allow 15 minutes for this task.

TEACHER NOTE

It would be helpful if you circulated from one group to another to give assistance. Problems may be anticipated with vocabulary and with the statements since they are complex. Many do not have a "because," "since," or "for" to clue students as to the reason the author is using to support this position. Often these reasons have to be inferred from the context of the statement. A similar situation exists in regard to the author's position concerning the existence and nature of a population "problem."

In addition to discussing the exercise in class, you may want to collect it and check student performance. The exercise can be used as a diagnostic device to see if the concepts discussed in the Focus on Values filmstrip have been mastered and are being correctly applied.

* DISCUSSION *10-20 minutes* *

* DISCUSS EXERCISE

1. Review Exercise: Use teacher version to provide feedback regarding individual items. The teacher version of the exercise, if you wish, can be reproduced and distributed to students for use as a confirmation sheet.

A. Discuss exercise in whole or in part.

B. Discuss Pendulum booklet in general.

2. Sample Questions: Class discussion should be tailored to fit the needs of your students as well as the approach you choose to follow in reviewing the exercise. The questions below are offered as a guide in helping you generate discussion questions for use in your class.

A. What was the general reaction to the Pendulum booklet? What kind of impressions did students get from reading the statements and performing the exercise?

* Experts disagree over nature of the population issue.
* Most statements were incomplete value statements.
* Topics mentioned in quotations covered a wide range of things.

B. Do the people quoted look at the same things as part of the population question, for example, growth?

* No. Many look at different aspects.
* What they look at is influenced by the field of science in which they work. Biologists tend to look at different things than do social scientists.

C. What were some of the things authors talked about when considering the population question?

* national growth
* world growth
* distribution
* migration

D. What things were mentioned as being influenced by population growth and changes?

* Quality of life.
* The environment.
* The problems faced by society and the ease with which society can deal with these problems.

E. Did all the authors think that population changes were a "problem?"

* No.

F. What were the bases for disagreements in perception over whether or not population was a "problem?"

* Different information considered.
* Different values (perspectives) used to interpret available information.

G. How "satisfactory" were the statements, given the criteria for complete value judgments presented in the Focus on Values filmstrip (i.e. were statements complete value statements)?

* Not very satisfactory. Few statements contained reasons for a position. Most simply asserted a position.

3. Summarizing Activity

A. Ask students to individually write down whether they currently think there is a (1) U.S. population problem, or (2) world population problem. Students should give their position and their reasons. Students who perceive a problem should state the most pressing aspect of the population problem as they see it.

B. Have students go back to individual Reaction Sheet I.1 (Systems Man) for Lesson I. Have students compare their present perception of the most pressing population problem with that originally listed when thinking of Systems Man.

C. Have students' views changed since they were exposed to more facts and value positions regarding population?

* ASSIGNMENT *5 minutes* *

* ASSIGNMENT

TEACHER NOTE

There are several optional readings that can be used in conjunction with this lesson. Reading preparatory for tomorrow's lesson many also be assigned.

Lesson 4.3 is a different type of lesson than those which have gone before. It provides you with three alternative lesson strategies: a discussion, a role-play, or a playlet. Two of these, the playlet and role-play deal with value conflicts related to population growth. The third alternative, the discussion, relates to value conflicts regarding population distribution and local growth/no growth issues within the U.S.

Depending on the option you choose, you may or may not want to assign preparatory homework reading for the lesson. Otherwise, class time will have to be devoted to allowing students to read required materials.

The playlet option may be read in class or performed and discussed.

If performed, you may want to assign roles this afternoon so students can prepare in advance of the next class meeting.

Preparation for the role-play can ge done as an assignment or during class time. The latter procedure, however, takes time away from the role-play and discussion, unless an extra period is utilized for these activities.

The distribution controversy discussion materials can easily be read for discussion during class time. These materials are the same as those provided for Lesson 3.1.

TEACHER VERSION

TEACHER VERSION

Instructional Objectives

After this lesson you should be able to do these things:

1. Write in your own words the definition of values.

2. Identify factual, value, and incomplete value statements and explain each.

3. Discuss different positions that experts take on the population issues.

4. State your own position as to whether there is a population problem and defend the position you take.

TEACHER VERSION

Statements	Type	Position	Facts	Specific Issue
The increase in the world population is one of the determinants of the ecological crisis and indeed may be at its root.	*Inc.*	*Pro*		*Ecology*
More nonsense is currently being talked on the subject of population than on any other subject that comes to mind!	*Inc.*	*Con*		*General Population*
No geological event in a billion years--not the emergence of mighty mountain ranges, nore the submergence of entire subcontinents, nor the occurrence of periodic glacial ages--has posed a threat to terrestrial life comparable to that of human overpopulation.	*Inc.*	*Pro*	*Emergence of mountain* *Submergence of sub-continents* *Occurrence of glacial ages*	*Survival of life due to over-population*
. . . The critical facts are that America is not by any standard a crowded country and that the American birthrate has recently been at an all-time low. . .	*Inc.*	*Con*	*American birth rate at an all-time low.*	*American population growth*

Statements	Type	Position	Facts	Specific Issue
The United States is characterized by low population density, considerable open space, a declining birthrate, movement out of the central cities--but that does not eliminate the concern about population.	*Inc.*	*Pro*	*Declining birthrate* *Movement out of the cities*	*U.S. population problem*
This country, or any country always has a "population problem" in the sense of achieving a proper balance between size, growth, and distribution on the one hand, and, on the other, the quality of life to which every person in this country aspires.	*Inc.*	*Pro*		*Growth, distribution, and quality of life in population problem*
. . .The nations social system is grossly incapable of supporting the people who created it in their present and expected numbers.	*Inc.*	*Pro*		*Social system*
All living things--both plant and animal are linked in an ecological balance.	*Fact*	*Neutral*		*Balance of nature*
Man has an essential role to play in this chain of regeneration	*Inc.*	*Neutral*		*Balance of nature*
Pollution is a red herring in discussion of population.	*Inc.*	*Neutral*		*Pollution*
Instead of thinking of the "population explosion" as a disaster, I choose to think of it as evidence of a great triumph: Human knowledge and productive powers have increased to the extent that the world can now sustain life for more people.	*Value*	*Con*		*Population as achievemen*

Statements	Type	Position	Facts	Specific Issue
And is life not the finest goal of life?	*Inc.*	*Neutral*		*Sustaining life*
The results of human reproduction are no longer solely the concern of the two individuals involved, or of the larger family, or even of the nation of which they are citizens.	*Inc.*	*Neutral*		*Responsibility of having children*
A stage has been reached in the demographic development of the world when the rate of human reproduction in any part of the globe may directly or indirectly affect the health and welfare of the rest of the human race. (Therefore) It is in this sense that there is a world population problem	*Value*	*Pro*		*Interrelationship of the world*

TEACHING ACTIVITY 4.3 VALUE CONFLICTS

PURPOSE

The purpose of this lesson is to help students identify and discuss ways of dealing with value conflicts involved in issues related to population policy decision-making.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Identify value conflicts that may arise over efforts to limit population growth in the U.S. or to redistribute U.S. population.
2. Identify one's own values as they relate to issues of volunteerism and coercion given a hypothetical situation relating to population.
3. Discuss advantages and disadvantages of trying to resolve value conflicts through coercion, persuasion, and/or mediation.

TEACHING SCHEDULE

Review-Relate	5 minutes
Student Activity	20-30 minutes
Discussion	10-15 minutes
Summary	1-5 minutes

TEACHING AIDS

(Appendix with sample discussion questions.)

LEARNING AIDS

Alternative Student Materials (Select 1)

* Student Activity Book (Playlet on coerced family size limitation)
* Exercise 1 (Role-play on coerced family size limitation)
* Reading and Discussion Booklet (Land-use controversity: Xerox vs. Greenwich, Connecticut)

TEACHER NOTE

This lesson provides a choice of three modes of instruction:
- *reading and discussion,*
- *playlet performance and discussion,*
- *role-play performance and discussion.*

Two modes--playlet and role-play--are associated with value conflicts dealing with coerced population control plans. The readings deal with the local growth/no growth controversy. This topic may have been considered earlier as part of Lesson 3.1.

You should choose the topic and mode of instruction suitable to your students' abilities and interests. Each mode offers opportunities for surfacing and discussing conflicting value positions. Each also offers opportunities for exploring ways in which value controversies can be settled.

Students should be encouraged to identify both value positions and reasons when analyzing various viewpoints. Similarly, they should be encouraged to state reasons for their own positions. When reasons involve assertions of fact, students should be challenged to demonstrate the accuracy of their assertions. This may be done by assigning individual or group research topics.

Possible Discussion Questions

Possible discussion questions for the reading/discussion booklet on land use planning include (1) the advantages and disadvantages (social, political, economic and ecological) of a town being "too" large or "too" small; (2) the right of a community to exclude people or prevent people from migrating into the community; (3) the Constitutional issue of whether or not the American people have an unlimited right to move where they want in the U.S.--when they want.

Possible discussion questions for the population control materials deal with (1) the nature of the "interests" represented in the debate (i.e. women's rights, minority group members, volunteers, business-military group representatives) and the positions taken by these people; (2) reasons given for various positions; (3) concern over whether population policy must be coercive or whether it can rely on voluntary measures; (4) the nature of the procedures being used to surface and moderate conflicting values (e.g. why was a public hearing being held?); (5) alternative procedures that could have been used to "study" the proposed policy (e.g. review by experts as to effectiveness, feasibility, etc.); (6) the overriding issue of how value conflicts within a society may be resolved without resort to violence and with attention given to the rights of the minority.

Time

Time for this activity may vary, depending on need for student preparation and depth to which various issues are explored.

TEACHING PROCEDURE

REVIEW-RELATE
5 minutes

* INTRODUCE LESSON

1. Point out to students that in previous lesson they saw individuals differ in their perceptions of population issues.

2. Today the class will see that groups also differ in perceptions of population issues and that as a result, conflicts may arise.

3. Objectives:

   A. In today's lesson students should look for various value positions (and reasons) and determine differences and similarities.

   B. Students should also consider ways to manage or resolve the conflicts which may arise among groups.

STUDENT ACTIVITY
20-30 minutes

* STUDENTS ENGAGE IN SELECTED ACTIVITY

1. Distribute appropriate materials to students (Student Activity Book F, Role-play Exercise, or appropriate optional exercise from lesson 3.1).

2. Have students read directions to exercise and, where appropriate, seek volunteers or make role assignments.

3. Have students read discussion materials or study playlet or role-play parts.

4. Organize classroom furniture for discussion (circle or semi-circle), playlet, or role-play (see description of scene included in materials).

5. If playlet or role-play are used, have students perform play or engage in role-play. (Two role-plays may be run simultaneously.)

DISCUSSION
15-30 minutes

* DISCUSS STUDENT ACTIVITY

TEACHER NOTE

Discussion may be held immediately after completion of the playlet or the role-play or, if time does not permit, discussion may be delayed until the following class period. As positions and reasons are identified they should be listed on the chalkboard and/or on a student exercise sheet (not included with these materials).

SAMPLE DISCUSSION SEQUENCES ARE INCLUDED AS AN APPENDIX TO THIS LESSON GUIDE.

* SUMMARY *1-5 minutes* *

* SUMMARIZE LESSON

1. Today students discussed a number of value conflicts related to population and considered ways in which society might handle these conflicts.

2. Tomorrow students will look at values from the perspective of the individual.

3. The issue will not be one of conflict, but of trying to understand <u>reasons</u> for people wanting the number of children they do.

OPTION 1
PLAYLET

APPENDIX TO LESSON 4.3: SAMPLE DISCUSSION QUESTIONS

* PLAYLET OPTION: Sample discussion questions.

I. Make sure students understand setting for the play.

A. When does the play take place?

* 1980s.

B. What type of meeting is being held?

* A government commission is meeting to talk with the public about a proposed law dealing with forced birth control and family size limitation.

C. What are the provisions of the proposed law?

* Licensing procedures established for child-bearing; women required to practice birth control unless given permission to conceive, (etc.).

D. Why has the law been proposed?

* A sudden rise in fertility in 1979 caused the government to worry about growth over the next generation and the ability of the U.S. to provide for this growing population.

* Issue of quality of life and perhaps survival implied.

2. Have students identify the main issues. The playlet raises a variety of issues. Student understanding of the issues should be determined. Lines from the play may be singled out for student comment and/or discussion questions asked.

A. What points were made for and against the proposed law?

* FOR:
  -- Need to protect well-being of society. This cannot be done on a volunteer basis.

  -- Will encourage small families and this will help people provide more for their children and have more for themselves.

-- Society has obligation to future generations that can't be met unless people are required to limit their family sizes.

-- Law may encourage better and healthier children since unwanted children will not be born.

* AGAINST:
  -- Minority people endangered since law could be used to prevent them from increasing their numbers and influence (this assumes population size and power are related).

  -- Law is sexist--aimed at women.

  -- Law violates right of people to freely choose family size without government interference.

  -- Law may be used to discriminate against the poor and to control their numbers.

  -- The law may be detrimental if one assumes a growing population is good for the economy and provides people who can serve in the Armed Forces.

B. With which points of view do the students sympathize? Why is this?

3. Consider alternative policy options.

A. Ask: If the U.S. ever had to take direct measures to reduce (or increase) average family size, what type of law would students develop?

B. Ask: What would the students do to develop popular support for their law?

TEACHER NOTE

At this point, the class may be divided into work groups. Each work group should be given the task of developing and gaining support for a law that might lower fertility in the United States. Outside research can also be initiated at this point. Such research might deal with points made in the playlet. For example, how feasible is it to base

a fertility control policy on voluntary measures? Is it possible to have a program that is not sexist--i.e. that aims at male behavior as well as female behavior? How justified are claims of "possible genocide" for blacks and other minority groups? What safeguards might be built into a law to prevent genocide from occurring?

OPTION 2
ROLE-PLAY

* ROLE-PLAY OPTION: Sample discussion questions.

1. How did role-play turn out? Was the proposed law passed? Why or why not?

   * Position plus reasons given.

2. What arguments were important in terms of having the proposed law passed (or rejected) by the Commission?

   * Sample points that might be mentioned:

   -- Need to assure high quality of life and protect environment.

   -- Right of family to have as many children as it wants without regard to social consequences.

   -- Issue of possible genocide or discrimination against the poor.

   -- Issue of law being sexist (aimed primarily at women).

3. If a fertility control program had to be started in the United States, what type of program would students support?

   A. Specifically, what type of provisions would students include in their law (if there had to be one)?

   B. What specific procedures would the students follow in trying to gain public acceptance of their law?

   C. What groups might the students count on for support of their law or for opposition to their law?

TEACHER NOTE

Question 3 can be handled either entirely as a discussion question, or as a small group activity where students are required to generate their own fertility limitation program. Different programs can then be presented, compared, and discussed.

4. How might a population policy differ from a policy regarding family planning or family size limitation?

   * Population changes result from births, deaths, immigration, emigration, and internal population shifts. A policy on population would have to consider many things in addition to family planning or family size limitation.

OPTION 3
READING SELECTION

* LAND USE PLANNING READING (OPTION FROM LESSON 3): Sample discussion questions.

1. What advantages and disadvantages are involved in the growth of a community?

   * Advantages:

     -- New people enter community.

     -- Tax base may increase.

     -- Business in area may increase.

     -- Demand for housing, etc. may go up (helps business).

     -- Facilities may be developed which a smaller community couldn't afford (e.g. sewage treatment plants, water purification, libraries, shopping malls, etc.).

   * Disadvantages:

     -- Streets may become congested with traffic.

     -- Atmosphere of area may change.

     -- Costs of providing additional services (e.g. new streets, street lights, schools, sewers) to handle population increase may exceed tax revenue derived from newcomers.

2. What type of land use issues are currently being debated (or should be) in students' community? Sample topics of discussion include:

   -- Is there a town planning body?

   -- How much attention is given to planning?

   -- Who controls use of land in the community? (Realtors? Conservationists? Industry? Farmers?)

   -- How is population changing in the community and what effects, if any, is this change producing?

   -- What is the attitude of people in the community regarding the growth/no growth issue?

3. If a community passes a law discouraging local growth (for example, by not allowing farmland to be used for residential development or making building permits depend upon ability to hook on to a sanitary sewer line), does this violate the Constitutional rights of people who want to move into the community but are not allowed to do so?

   * This is a difficult question that is being asked a good deal as land use planning becomes more common. If people are excluded from a community because of race, religion, etc., courts have ruled that it is clear that their rights have been violated. If, however, ecological or aesthetic reasons are the bases for exclusion, the question is more difficult to answer. Balancing of ecological concerns and rights of those alreading in a community against rights of persons wishing to enter a community is necessary. Ground rules for how this is to be achieved are not well established at this point. A diversity of opinion should be encouraged from students, along with a realization that the issue is a complex one.

TEACHING ACTIVITY 5.1 FAMILY SIZE: PATTERNS IN THE U.S.

PURPOSE

The purpose of this lesson is to stimulate student interest in the relationship between things that influence family size and the result of family size on population changes and individual and societal well-being. The lesson also encourages students to examine their own beliefs about children and family size.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Speculate about the reasons people want or do not want to have children.
2. Cite examples of how biological and psychological factors, social pressures, economic concerns and desire for personal status and worth influence family size decisions.
3. Identify some of the value choices involved in deciding how many children, if any, a family should have.
4. Compare one's personal position regarding desired family size with that reflected in data collected from individuals in the United States.
5. Describe how individual family size preferences eventually influence the size and rate of growth of the nation as a whole.

TEACHING SCHEDULE

Individual Exercise	5-10 minutes
Small Group Assignment	25-35 minutes
Discussion	10-15 minutes
Assignment	5 minutes

TEACHING AIDS

A/V
35mm Slide Packet
1. Cartoon--Lady in a Shoe
2. Ad Sponsored by ZPG

A/V Equipment
Slide Projector

LEARNING AIDS

Personal Questionnaire: "How Many Kids?"
Picture Packet
Student Activity Book G: "Parents, Kids and Family Size"
Group Activity Sheet
Value Sheet: "Why Do You Feel the Way You Do About Family Size?"
Optional Reading: "Growth Factors in the U.S. Population"

TEACHING PROCEDURE

* EXERCISE *5-10 minutes* *

* STUDENT QUESTIONNAIRE

1. Introduction: Population changes are the result of many individual and family decisions. In today's lesson the students will begin studying some of the things that influence how many children, if any, people have.

2. Distribute the questionnaire, "How Many Kids?" and have students complete it. Allow five minutes for completion of the questionnaire.

3. After five minutes have each student fold the questionnaire and put his name on the outside.

4. Collect the questionnaires.

   A. Tell the class you are not going to look at them, but will return them later in the period.

   B. Place questionnaires in a conspicuous location where students can see them.

* SMALL GROUP ACTIVITY *25-35 minutes* *

* SMALL GROUP ACTIVITY: WHY PEOPLE HAVE CHILDREN

1. Introduce small group activity: Have students speculate as to things that influence family size decisions in the U.S. (i.e. how many children, if any, a couple has).

TEACHER NOTE

You may want to note student speculations on chalkboard. If so, try to group speculations which are similar together. In this way, categories

of possible reasons may begin to emerge. Sample categories are noted below as possible responses to why people have children. No attempt should be made to formally teach these categories to students as of this point in the lesson.

- *Biological reasons.*
- *Desire to carry on family name or pass on property (lineage).*
- *Desire to prove masculinity or femininity (status).*
- *Peer or family social pressure.*
- *Economic reasons.*
- *Love of children.*
- *Accidents or non-planned pregnancies.*
- *Attempts to create, save or seal a marriage through childbearing.*
- *Concern for wellbeing of group or society (e.g. worry over overpopulation, desire to add people to a particular group to increase military and/or political power, etc.).*

2. Divide class into groups of two to five students and initiate exercise.

   A. Provide each student with a Student Activity Book and group reaction sheet.

   B. Have students read objectives on the cover and the directions for the exercise.

   C. Answer any questions students may have about the exercise.

TEACHER NOTE

The following activity (#3) is designed to provide a group introduction to the exercise. It may be omitted if a slide projector is not available. If the slides are omitted, the exercise should commence by having students open their Activity Books.

3. Project and discuss either or both of the 35mm slides relating to childbearing.

   A. As the slides are projected, students (in their groups) should write down what they think the slide's message is regarding reasons people have children.

B. After each slide is projected, students should offer their views as to what motives the slides dealt with.

* ZPG Ad: This ad assumes parents desire a good life for their children (a psychological reason) and will adjust their family size in response to social conditions (which now encourage small families).

-- Parents desire to see their children live a good life.

-- If parents are optimistic about the future, they may be willing to have more children than if they are concerned about the future.

-- The ad plays upon a presumed psychological dimension of childbearing--that relating to parents' desire to see child thrive.

* Cartoon: Woman in a shoe. This cartoon assumes some people bear children for reasons related to status and psychological needs.

-- Some people have a psychological need to prove themselves by having children.

-- Status and worth are often related to childbearing. Producing children is one way to gain status and worth in the eyes of one's peers.

-- A person's masculinity or femininity may be demonstrated through the bearing of children.

4. Have students begin to work in their Activity Books. Point out they should engage in the same process the class has just experienced. Allow 15-20 minutes for this activity.

* DISCUSSION *10-15 minutes* *

* GROUP REPORT AND DISCUSSION

TEACHER NOTE

This group discussion is designed to assist students in the categorization of their reasons into concept areas. However, some

groups may not achieve the categorization goal. During class discussion move the discussion toward this goal to facilitate the summarization of the reasons people choose or choose not to have children.

1. Have a member from each group summarize the group's conclusions as to the reasons that influence how many (if any) children a couple has. Factors should include those covered by the stimulus materials. Students may also generate novel reasons not covered by the materials.
   - * Social pressure (Planned Parenthood Ad).
   - * Unplanned/accidental pregnancies (data sheet and cartoon).
   - * Religious considerations (quotations).
   - * Psychological and status considerations (cartoon of woman in shoe).
   - * Economic concerns (data sheet costs and benefits of having children).
   - * Biological factors and motivations (Lorenz cartoon).
   - * Social concerns (altruism and/or group self interest--ZPG ad).
   - * Personal concerns (Planned Parenthood Ad on personal happiness and self fulfillment).
2. Consider similarities and differences in group reports.

* ASSIGNMENT *5 minutes* *

* QUESTIONNAIRE RE-ANALYSIS

1. Return student questionnaires.
2. Have students review their answers in light of the class exercise and discussion.
3. Have students write a brief paper on things they perceive as influencing their attitudes toward childbearing and family size.

OPTIONAL ASSIGNMENT

Students may also be given an optional reading on growth factors for the U.S. population. This reading relates how individual motivation plus age structure influence population growth and growth potential.

Some teachers may want students to read this material as an exercise. Others may want to devote class time to discussing points raised in the reading.

The reading, with or without discussion, can be used as a transition to tomorrow's lesson. The reading can also be used as the basis for a lecture on factors influencing population growth. If the reading is used as a lecture, an added day of instruction should be anticipated before beginning lesson 5.2.

Population Inquiries
5 - Individual Decisions and Population Changes 1

TEACHING ACTIVITY 5.2

FAMILY SIZE PATTERNS IN LESS DEVELOPED COUNTRIES: A CASE STUDY OF LIFE IN RURAL INDIA

PURPOSE

The purpose of this lesson is to highlight the forces of tradition and change in less developed countries and to show how these relate to individual decisions about family size.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Identify and explain how each of these factors influence individual decision-making in regard to family size in less developed nations:
   - Economic need for children, particularly dependence upon children for care during one's old age.
   - High level of infant mortality.
   - Lack of opportunities for women to be anything but mothers and wives.
   - Improved medical treatment, food and sanitation, and reduction in infant mortality.
   - Social and religious customs requiring male heir.
   - Status and prestige associated with a large family.
2. Explain why, in the past, high levels of fertility were socially accepted as being necessary to the well-being of the individual and society.
3. Discuss how rapid reduction in deaths, especially among infants and young people, and growing industrialization have upset social balance so that society no longer appears to benefit from having its people have large families.

4. Compare motivations for children in the U.S. with those in a country such as India.

TEACHING SCHEDULE

Review-Relate	5 minutes
Introduce Filmstrip	5-10 minutes
Filmstrip	18-20 minutes
Discussion	10-15 minutes
Assignment	1 minute

TEACHING AIDS

Filmstrip: "Rural India: May You Have A Thousand Sons"

LEARNING AIDS

Reaction Sheet
Planafam Directions

TEACHING PROCEDURE

REVIEW-RELATE
5 minutes

* REVIEW FAMILY SIZE INFLUENCES

TEACHER NOTE

If students were assigned the optional reading for lesson 5.1 you may want to review the points brought out in the reading before initiating today's lesson. The reading should help the students understand that the family size decisions in the U.S. are changing, and as a result, family sizes are smaller than they were a decade ago. Students can be encouraged to speculate on the causes for this decrease in typical family size. This can then lead into the review below.

1. Review factors identified in lesson 5.1 as influences on individual perception and attainment of ideal family size.

   A. Question: What were some of the things we discussed in class that influence how many children a person (in the U.S.) has?

      * Social Reasons

      -- Pressure from family and friends.
      -- Desire to pass on family name and/or wealth.
      -- Power that a large family might have in a community.

      * Religious Concerns

      -- Belief that having children is a religious duty.
      -- Desire to add to the number of one's religion.

-- Belief in the holiness of life and birth.

* Psychological Factors

-- Desire to "prove" one's masculinity or femininity through having children.
-- Desire to love a child or "give of one's self."
-- Desire to "live on" through a child.
-- Enjoyment and satisfaction from children.

* Economic Factors

-- Children can work and add to family income.
-- Children can help parents in their old age.
-- Children may or may not be expensive to raise, depending on what one provides for them.

* Biological Factors

-- People may or may not be biologically capable of having children.
-- The reproductive life span is increasing. It begins earlier and ends later than ever.
-- There may be a biological drive, aside from sex, to reproduce.

* Accidental Births/Family Planning Failures

-- People can have children because they don't use contraception.
-- Contraceptives are not completely fail-safe. Moreover, some are more effective than others.

INTRODUCE FILMSTRIP
5-10 minutes

* INTRODUCE FILMSTRIP FOR TODAY

1. In today's lesson students will consider a very different type of society to see if the things that affect people in the United States are similar to those influencing people in countries experiencing rapid rates of population growth (e.g. India, Indonesia, the Philippines, Mexico, Brazil, Algeria, Morocco, etc.).

TEACHER NOTE

Rapid rates of population growth are usually rates that range between 2-4 per cent a year. Countries with rapid rates of growth typically are less developed nations which experienced a rapid decline in mortality

due to the induction of western medical technology prior to and after World War II. Since industrialization is only now beginning in these countries, they have not yet experienced the social changes that led to declines in fertility in the developed countries where growth is somewhere between 0.5-1.5 per cent a year. The Population Reference Bureau's Population Data Sheet provides useful data regarding different rates of growth if you wish to introduce this information at this time.

2. Introduce India as the country students will study.

   A. The country students will consider in this lesson is India. This is the second largest country in the world in terms of population, although it is only 1/3 the size of the U.S. in area.

      1. India has a population of 600 million and is growing at the rate of 2.5 per cent a year, which means that about 15 million people are being added each year.(This is about as many people as live in Australia)

      2. At its present rate of growth, India's population will double in size in about 28 years. By 1985 it is expected to have about 807.6 million people. (This is about 4 times as many people as now live in the U.S.)

      3. Rapidly growing countries tend to have many young people. 42 per cent of the people in India are under 15 years of age. (In the U.S. 27 per cent are under 15 years of age.)

   B. In many ways India is typical of the countries in the world where population is growing the fastest.

      1. Not much industry.

      2. People still live in rural areas, but cities are rapidly developing (as was shown in the transparency for lesson 3.1).

   C. India is aware of the problems associated with population growth and, as we will see in a later lesson is struggling to reduce its rate of growth. It has the greatest experience of any country in the world in trying to slow rapid population growth.

D. In looking at the filmstrip students should be aware that the type of life shown is typical of that which can be found throughout much of Asia, Africa and Latin America.

3. Distribute Reaction Sheets and reveal objectives.

A. In viewing the filmstrip, students should identify the following:

1. Things that would motivate people to want large families.

2. Things that would motivate people to have small families.

B. Reaction Sheet is to help students note these things for men and women.

FILMSTRIP
18-20 minutes

* SHOW FILMSTRIP: RURAL INDIA: MAY YOU HAVE A THOUSAND SONS

DISCUSSION
10-15 minutes

* DISCUSSION: WHAT FORCES INFLUENCE DECISIONS ABOUT FAMILY SIZE IN INDIA?

TEACHER NOTE

The Reaction Sheet should be used as the basis for the first two discussion questions. For each question list as many (accurate) student responses as possible. Responses should be based upon information presented in the filmstrip. After responses are listed, they can be categorized, if you wish, and the categories compared to those previously mentioned during the Review-Relate section of this lesson.

1. Question: What things influence a man (in rural India) to want (a) many children, (b) few children?

* Many children (man's view) sample responses:

-- Social: Prestige and power in village associated with many children, especially sons.
-- Economic: Sons can aid in work (on farm or in craft). Sons can provide for parent during parent's old age.
-- Psychological: Sons extend lineage and carry on family name.

-- Religious: Children, especially sons, are required to say blessings for deceased parents.
-- Demographic: At least some children are likely to die before adulthood. To assure some survive, many are required. (Currently about 139 babies under 1 year of age die per 1,000 live births in India. In the U.S. the rate is 18.5 per 1,000 live births.)

* Few children (man's view) sample responses:

-- Demographic: More children are surviving to adulthood than in the past, so fewer need be born to assure some reach adulthood. (In 1901-1911 42.6 people died each year per 1,000 population. In 1951-61 22.8 people died per 1,000 population. In 50 years the rate of death dropped by about 1/2.)
-- Social: Education (which is not free) is becoming more important for success in India. Government is encouraging small families.
-- Economic: Too many children are expensive to provide for. Sons divide property into small units. Girls require marriage dowries. Smaller families allow everyone in the family to have a higher standard of living.

2. Question: What things influence a woman (in rural India) to want (a) many children, (b) few children?

* Many children (woman's view) sample responses:

-- Social: Children, especially sons, give a woman prestige and status within her family and among villagers.

-- Economic: Children, especially sons, are needed to look after a mother in her old age. Since she is likely to outlive her husband by many years, this is very important for the mother's wellbeing. Daughters can help the mother around the house.

-- Demographic: At least some children are likely to die before adulthood. To ensure that one or two sons survive to help the mother in her old age, family size must average 5-6 children.

-- Psychological: The role of woman is firmly linked to motherhood and domestic pursuits.

* Few children (woman's view) sample responses:

  -- Demographic: More children are surviving than before, so fewer births are required.

  -- Health: Many children are hard on a woman's health.

  -- Economic: Changes in society are creating a demand for educated persons to work in industries, etc.' Schooling is expensive and is difficult to provide if families are large.

  -- Social: Government is encouraging small families.

3. Question: How do these kinds of influences compare with those in the United States?

TEACHER NOTE

Answers are likely to vary in regard to this question. General categories (e.g. economic influences, social concerns, etc.) can be seen to be the same, but specific items within each category are likely to vary. Among the points brought out should be the following:

* *In India there has been a great need to have at least one or two surviving sons to contribute to family income and take care of parents in old age.*

  In U.S. children usually are not viewed as sources of income to the family, rather they are considered an "expense" the parents have to incur.

* *In India sons have to take care of their parents in their old age. In the U.S. social security (etc.), not children, provides the basis for old age security.*

* *In India infant and death rates have been high (139 per 1,000 live births) so that families have had to have many children in order to assure that some sons survive. Although this is changing, it is neither widely realized, nor, where perceived, viewed as being permanent. Consequently, fertility remains near traditional levels (the birth rate is 42 births per 1,000 people).*

  In the U.S. infant mortality (18.5 deaths to children under 1 year per 1,000 live births) is much less than in India, although it is considered high for an industrialized nation.

* *In India women have few alternative roles available to them other than motherhood and keeper of the house. In the U.S. women have expanding opportunities for careers and pursuits outside of the family.*

4. Summary: Point out that parents are much more dependent upon children for the family welfare in India (and other less developed nations) than they are in the U.S.

ASSIGNMENT
1 minute

* ASSIGNMENT: LEAD IN TO TOMORROW'S LESSON

1. Distribute Planafam introduction to students. A copy is contained in the Appendix to the Planafam Instruction Book. This should be removed and duplicated for distribution prior to class if the simulation is to be used.

2. Optional: Students may individually or as a group be assigned to do some basic research on India (e.g. where is India? What is its history? How is it governed? etc.).

RURAL INDIA: MAY YOU HAVE A THOUSAND SONS

	Audio	Video
---	Music	Title frame Face with fly on nose Child's head
1.	The Goddess Modeva has answered my prayers. I have given birth to a son.	Full view child
2.	A son! My husband and mother-in-law will be proud and pleased. What will he be like?	Boy carving soapstone
3.	I pray he will be strong. Dei, the midwife, placed cowdung cakes, water, and wheat beneath my bed, a sickle at the foot--	Boy in green cap, brown scarf
4.	I hope these keep him safe from evil spirits	Boy in dugout boat
5.	so he may live to bring pride to his family	Young man with red scarf
6.	and grow to be like his father . . .good, strong. . .	Man in pink turban
7.	strong and useful. . . like the Kapok tree.	Kapok tree in bloom
8.	It is written: "The root of everything is birth." Children are India's pride	Mother + 3 children in doorway
9.	but they are also a problem.	Family on bicycle rickshaw
10.	There are so many more of them today than in days past.	5 children standing in village street
11.	But village families remain large.	Man, woman, 4 children
12.	Although pressures on the family and village are building, life continues much as it always has--	Village street scene
13.	to understand why, we must look at life in Rural India.	Village seen from distance
14.	Rural villages are small clusters of families living closely together.	Closeup, village houses

15.	The people share a sense of community, of belonging, with those who share similar values and customs,	People in marketplace
16.	and with whom they will spend most of their lives. The need or opportunity to venture outside the village has been slight, especially for women.	5 women + 3 children sitting, playing game
17.	Work, the major activity, is handed down from father to son. . .	Man, boy with cattle
18.	and from mother to daughter.	Woman, 2 girls sitting, shelling pods
19.	It is highly specialized so that most of the basic needs of life can be met within the village.	Woman weaving
20.	An Indian's occupation is largely determined by family tradition and caste. . .	Man doing pottery
21.	the place in society into which a person is born.	Man using sewing machine
22.	Age, sex, and caste strongly influence the way a person thinks and behaves. Expectations have changed little through generations.	2 men + 2 bullocks threshing
23.	Tradition, the power which keeps the village a balanced whole,	Holy man reading
24.	is both feared and respected.	Kali festival
25.	Traditional women's roles have been especially limited. Religious codes state:	Old woman eating
26.	"In childhood a female must be subject to her father, in youth to her husband; when her lord is dead to her sons; a woman is never fit for independence."	Mural scene blown up
27.	In the past, marriages were arranged in early childhood, at least several years before the boy and girl would actually live together.	Young girl, child in background

28.	Usually a boy or girl's parents decide about a marriage and then tell their child of their decision.	Betrothal ceremony
29.	A son or daughter always agrees because what his parents say must be respected.	Wedding ceremony
30.	We are consulted, but our feeling has no weight.	Wealthy couple on wedding day
31.	Folk songs express a young girl's fears of leaving home:	Girl + bullock threshing
32.	Father, had I been your son, I would have stayed to thatch a roof	4 men thatching roof
33.	To take the cattle out to graze, to drive the plough across your field,	Man + 2 bullocks plowing
34.	But I was born your enemy, a daughter who must go away. At home I used to laugh and dance . . .	3 girls making leaf plates
35.	Today I leave you weeping.	Desolate village scene
36.	Girls know what is expected of them. A girl must obey her mother-in-law and husband . . .	2 women, each with baby
37.	I will have to cook . . .	Woman crouched, cooking
38.	I will have to fetch water . . .	Women + girls with water vessels
39.	I will serve, respect, and obey—especially my mother-in-law and husband. Boys, too, have similar expectations about what a wife must do.	Family scene, woman cooking
40.	My wife will be expected to work for the house . . .	Woman replastering wall
41.	(Silent)	Woman doing housework

42. and she must bear children, especially sons. . .	Young woman + child
43. she should go to the fields and help with the farming--	2 women going to fields
44. I don't want her to go to the fields, but if my mother works and she sits quietly, what would the people of the village think?	Women working in field
45. She will respect my father by covering her head and won't speak directly to him.	Older man in brown turban & vest
46. She will always obey me. The Padampurana, our great religious epic, says:	2 people costumed
47. There is no other god on earth for a woman than her husband.	Man in white hat & kurta
48. Wives must bear children. The large family is a strong tradition.	Group women, children seated
49. Children are needed for economic, sentimental, social, and religious reasons.	Man, woman, 3 children
50. If a woman has many children, others will look up to her. She can say proudly. . . I have many children.	Women in marketplace
51. If there is an epidemic or flood, our children will die, and then we are left to weep for the rest of our lives.	Flooded village
52. The joy of being together is best in a large family.	Ferris wheel
53. God may take away one child. Look at my only son. He suffers from many diseases. He is always sick.	Woman with sickly infant
54. If a mother has five or six children, at least two or three sons will live.	7 children in field

55.	Sons have a special value. There is a saying, "One eye is no eye and one son is no son."	Woman holding small son
56.	(Song)" You are my gift of gods, You are my boon of prayers, You have come, now live long.	Woman with infant son
57.	You are my wealth, You are my frangrant flower, You have come, now, live long."	Boy sitting on ground
58.	A son is important for continuing the family name. "I would not stop having children. . . even seven or eight. . . until I had a son."	2 men making furniture
59.	I am sure I will have sons because I am strong.	Man in orange turban
60.	When my brothers unite we are powerful.	Boys exercising
61.	A son can look after his parents in their old age.	4 generations of men
62.	If my mother had not a son, on whom would she have depended for the support of her two daughters? Who would pay for their marriages?	Young men sitting in group
63.	Who would perform religious ceremonies for my family after their deaths?	2 men burning candles
64.	My mother is always saying, "I am living because you are there --otherwise, how can I fight with life in such hard days?"	3 women, each holding child
65.	Since wives may be widowed at an early age and remarriage is frowned upon by others, women value sons more highly than men do because women need sons to take care of them in their old age.	4 generations women
66.	An ancient religious document states that a woman who remarries will "enter the womb of a jackal in the next life."	Woman, child, bullock

67. Though sons are preferred, girls are of some value. A daughter can watch the children and help in the kitchen and in the fields.

Girl holding small child in field

68. My mother says girls are of help to the family, but they produce tension and drain the family of its wealth.

Young girl

69. My father must pay many rupees for my wedding. Even then, there is no guarantee I'll be happy. Sons are best!

Group of girls sitting, eating

70. Sons are important. A woman without sons may be called "banjh," barren woman. Her husband may leave her or take another wife or she may become a servant in her husband's house. If a woman loses all her sons she may be thought to be possessed of the "evil eye."

Destitute woman sitting on curb

71. (Song) "Better be mud than a barren woman,
On the mud will grow a tree,
Giving shelter from the sun."

Women carrying water by large tree

72. Large families, then, have been necessary for rural villagers.

3 women, 2 boys sitting

73. But today...safer and cleaner water, better food, sanitation...

Girl washing small child

74. and medical improvements have meant more surviving children. The balance of the village is upset.

Large group people

75. The approach of the city and modern ideas further challenge traditional values.

Urban street scene

76. I farm and work at the factory and make a good living, but I have many children and they consume so much food that I am half starved.

6 children sitting on floor

77. They are like small snakes. The eat everything. There is nothing good about having so many children.

Woman, 3 children, bullock outdoors

78. Having many children means much hardship, especially if the mother must work in the fields...without much to eat.

Women carrying wheat

79. This year three women died during delivery. Many children are not good for a woman's health.

Women transplanting rice

80. With more surviving sons, there are few jobs available, and land is divided into plots too small to economically farm.

Man + 2 bullocks plowing

81. If there are only two children, we can pay the charges for our son's schooling and get him proper medical care.

Small boy sitting amid books

82. We may even be able to afford these things for our daughter.

Small girl

83. But if there are many, they will grow in a rough way and be poorly cared for. Children are like plants; if they are close together they do not grow well.

Group children playing by street

84. Villagers seek different ways to limit their family size... instead of praying to the River Goddess for a thousand sons, a woman may ask that, "I have no more children."

5 women + 2 children at shrine

85. Or she and her husband may seek help from a government family planning agency.

Family planning sign

86. I want only two children, that is enough...even if both are girls. We can do more for two than we can for many.

Woman + 2 children

87. Yet the tradition of large families remains. Women are reluctant to risk the disapproval of others...

5 children next to family planning sign

88.	. . .and are afraid of growing old without sons to take care of them.	Old woman
89.	Disadvantages are viewed as temporary until the children mature and can add to the family income.	5 children sitting on ground
90.	Though forces of change are present, opportunities to change are limited.	Women harvesting wheat
91.	There are virtually no alternative living styles open to village women.	Woman milking cow
92.	Girls' schooling is often completely neglected, especially if there are sons in the family.	Girls washing dishes in river Girl making dung cakes
93.	The role of wife and mother is firmly fixed. If a woman does not conform, she may be cast out of the village.	Woman holding child
94.	Tradition cannot be quickly changed.	Double slide - 2 old women
95.	May you have a thousand sons. May you have a thousand sons.	Pregnant woman carrying child
96.	Credit	
97.	Credit	
98.	Credit	
99.	Credit	
100.	Credit	
101.	Credit	

FILMSTRIP

RURAL INDIA: MAY YOU HAVE A THOUSAND SONS

OPTIONAL POSTTEST
TEACHER VERSION

Directions: Write TRUE or FALSE in the space provided after each of the following questions. In addition, if the statement is FALSE, give a reason to support your answer.

1. Most Indian villages depend on nearby cities for material goods.	1. FALSE* THEY ARE GENERALLY SELF SUFFICIENT.
2. There is pressure within the village to follow traditional patterns of behavior.	2. TRUE
3. In an Indian village, both men and women work outside the house.	3. TRUE* WOMEN DO HOUSE WORK AND ALSO WORK IN THE FIELDS. FEW WOMEN WOULD HAVE CAREERS.
4. Indians are always free to choose their occupations.	4. FALSE* CHOICES ARE LIMITED. CASTE AND FAMILY BACKGROUND INFLUENCE WHAT A PERSON CAN DO.
5. A large amount of time is spent resting and socializing in an Indian village.	5. FALSE* PEOPLE ARE GENERALLY BUSY. HOWEVER MANY ACTIVITIES ARE GROUP ACTIVITIES.
6. Indian village youths marry in their early twenties after completing school.	6. FALSE* MOST YOUNG PEOPLE MARRY IN THEIR TEENS OR BEFORE. FEW ATTEND SCHOOL. EDUCATION BEYOND 3RD GRADE IS UNUSUAL.
7. Women are expected to get a job to add to the family income.	7. FALSE* WOMEN ARE EXPECTED TO WORK IN THE HOUSE AND IN THE FIELD. THEY ARE EXPECTED TO HAVE CHILDREN.
8. A young bride moves in with the family of the groom.	8. TRUE
9. The bride's mother-in-law and father-in-law must wait on and serve her.	9. FALSE* THE HUSBAND'S MOTHER MUST BE RESPECTED BY THE BRIDE. THE MOTHER IN LAW MUST BE SERVED BY THE BRIDE & OBEYED.
10. Sons are valued more highly than daughters.	10. TRUE
11. On the whole, boys are given poorer medical treatment and education than are girls.	11. FALSE* SONS RECEIVE PREFERENTIAL TREATMENT.

12. It is often for economic security that a woman wants to have many children.	12. TRUE
13. A woman may be cast out of the village if she does not bear children.	13. TRUE
14. Husbands, above all, must honor and obey their wives.	14. FALSE* A WIFE MUST HONOR AND OBEY HER HUSBAND AND HIS MOTHER.
15. Rising costs of education and health services have made some villagers reluctant to have children.	15. TRUE
16. Traditional values concerning large families explain a great deal about why families continue to be large.	16. TRUE
17. Because of the possibility of epidemics, floods, diseases, etc., many families plan to have more children than they actually want.	17. TRUE
18. Age, sex and caste determine how a person in an Indian village is expected to think and act.	18. TRUE
19. Today, too many children are causing problems for Indian village life.	19. TRUE

FILMSTRIP

RURAL INDIA: MAY YOU HAVE A THOUSAND SONS

OPTIONAL POSTTEST

Directions: Write TRUE or FALSE in the space provided after each of the following questions. In addition, if the statement is FALSE, give a reason to support your answer.

1. Most Indian villages depend on nearby cities for material goods.	1.
2. There is pressure within the village to follow traditional patterns of behavior.	2.
3. In an Indian village, both men and women work outside the house.	3.
4. Indians are always free to choose their occupations.	4.
5. A large amount of time is spent resting and socializing in an Indian village.	5.
6. Indian village youths marry in their early twenties after completing school.	6.
7. Women are expected to get a job to add to the family income.	7.
8. A young bride moves in with the family of the groom.	8.
9. The bride's mother-in-law and father-in-law must wait on and serve her.	9.
10. Sons are valued more highly than daughters.	10.
11. On the whole, boys are given poorer medical treatment and education than are girls.	11.

12.	It is often for economic security that a woman wants to have many children.	12.
13.	A woman may be cast out of the village if she does not bear children.	13.
14.	Husbands, above all, must honor and obey their wives.	14.
15.	Rising costs of education and health services have made some villagers reluctant to have children.	15.
16.	Traditional values concerning large families explain a great deal about why families continue to be large.	16.
17.	Because of the possibility of epidemics, floods, diseases, etc., many families plan to have more children than they actually want.	17.
18.	Age, sex and caste determine how a person in an Indian village is expected to think and act.	18.
19.	Today, too many children are causing problems for Indian village life.	19.

TEACHING ACTIVITY 5.3

UNDERSTANDING PRESSURES ON FAMILIES IN LESS DEVELOPED COUNTRIES: INDIA

PURPOSE

The purpose of this lesson is to reinforce the ideas presented in the filmstrip. It develops an affective appreciation of how the structure of life in a rural, underdeveloped nation limits a person's options and encourages the bearing of relatively large numbers of children. As a result of the lesson, students should have a deeper understanding of the obstacles that must be overcome if nations, such as India, are to succeed in controlling their rate of natural increase through a reduction in fertility.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Describe the types of feelings generated (in the student) while playing the Planafam game.
2. Discuss how students' attitudes towards children and family size may have changed during the course of the game.
3. Identify social forces, such as the economic need for children, that influence individual decision-making about family size.
4. Compare pressures that influence Indian decision-making about family size with those that affect American families' decision-making in regard to these issues.

TEACHING SCHEDULE

Review-Relate	5 minutes
Presentation	5-10 minutes
Game Play	20-30 minutes
Discussion	10-15 minutes
Exercise and Assignment	1-5 minutes

TEACHING AIDS — Planafam Directions

LEARNING AIDS — Two Planafam gameboards, each with a Fertility Deck and Fate Deck.
Student Overview Sheets.
Student Role Assignment Sheets.
Student Tally Sheets
Optional Reading: The Woman in White

TEACHING PROCEDURE

* REVIEW-RELATE *5 minutes* *

* REINFORCE YESTERDAY'S LEARNING

1. Yesterday the class talked about some of the pressures which encourage families in countries such as India to want fairly large families. What are some of these pressures?

   * Women gain status from sons.

   * Because of the high chance of having some children die, there is a need for having more children than wanted in order to ensure that at least some survive.

   * Children are an economic advantage to a family, and are a form of "social security" for parents when they are elderly.

   * Women's opportunities are restricted so there is little else for a woman aside from child care and domestic tasks.

2. The class also saw that some changes were beginning to occur in village life that might lead to new attitudes toward family size. What are some of these changes?

   * Growing industrialization has altered traditional roles.

   * Need to educate children, especially sons, and to pay tuition means that large families must devote considerable resources to education or deny education to some children.

   * More surviving girls mean dowries are needed for more daughters than in the past.

   * More surviving sons complicates inheritance of land and property more than in the past.

* PRESENTATION *
5-10 minutes

* PLANAFAM DESCRIBED

1. Introduce Planafam game.

   A. Today the class is going to play a game which should help you understand how a young Indian couple might feel when thinking about their need for children.

   B. As the game progresses, the class will move through time, growing older along the way. As you age and as your family size changes pay attention to your feelings and how they may have changed.

   C. At the end of the game, we'll talk about these.

2. Rules presented and reviewed.

TEACHER NOTE

Complete directions are provided in the Instruction Manual for the game. These instructions are provided for demonstration purposes only.

   A. Game starts with the marriage of a young Indian couple.

      1. Both the bride and groom are fifteen years old.

      2. They will live in the boy's family's house where the girl will be expected to be dutiful and help the boy's mother in the household tasks.

   B. You are to imagine that after the wedding the families are gathered and, somehow, begin thinking about what the couple should do--if they should try to have their first child right away, or if they should wait a while.

   C. People involved are the bride and groom, their mothers and fathers, and the boy's brother and sister.

TEACHER NOTE

At this point you will probably want to actually demonstrate the game procedures as described in the Instruction Booklet for the Planafam game.

If so, distribute role assignments to students. Allow them a minute or two to read the role assignments, and then play the game for a few minutes.

D. Each person has some stake in what happens and should help the couple with their decision.

3. Rules demonstrated.

A. The couple can choose among the various alternatives on the board. Each has some cost, except for the option associated with potential childbearing.

B. After choosing the mode of behavior, the couple turns over a Fertility Card. This card tells what has happened under various conditions.

C. If a pregnancy occurs, five cards are turned. The fifth indicates the sex of the child. If a #1 is turned, however, the child is considered stillborn and is placed in the first empty box (from the top) in the Death Column.

D. After this the couple must again reconsider what to do.

E. Anytime a Chance, or Risk, of Death Card is drawn, you must go to the Fate Deck to see if any children have died. If the Fate Deck card number is the same as the number on any of the cards in the Boy or Girl Columns, those cards are moved to the Death Column.

TEACHER NOTE

Continue explaining the rules as you play the game. Once students have a basic understanding, allow them to begin playing. Point out that the brother and sister-in-law are "age keepers" who must keep track of how many years have passed (each three cards approximate one year). Also, if certain moves haven't occurred, ask students what would happen if, for example, a "sure pregnancy" card was turned while the couple was operating under the "separation" mode of behavior (nothing would happen and students should continue). Then have students assume roles and begin play. At the conclusion of each game have students change roles. Play for about 25-30 minutes before discussing the game.

* GAME PLAY *20-30 minutes* *

* PLAY PLANAFAM

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* DISCUSSION *
10-15 minutes

* STUDENTS DISCUSS GAME

1. How many couples were able to reach family size goals?

2. What were the factors built into the game that made it hard to reach goals?

   * Poor contraceptive techniques.

   * Long reproductive span.

   * "High" cost of prevention.

3. How much did personal reasons, social pressures, or factors "beyond control" influence your decision-making?

TEACHER NOTE

Attempt to surface as many different viewpoints as possible. Ask students if these reflect their own views or how they imagine a person in India would consider things. Attempt to contrast, where possible, students' own views with those which an Indian would have.

4. What kind of feelings did the game generate?

   A. Did you feel you were in control of the situation or not?

   B. Were you happy with what was happening?

   C. Did your attitudes about the desirability of different modes of behavior (e.g. separation, abortion, etc.) change during the game?

5. If you were an Indian do you think you'd have more or less control over family size options than a person in the U.S. has?

6. Would this make you happy or not? Or wouldn't you care?

TEACHER NOTE

Ask a student to try to answer from the perspective of an Indian rather than a person in the United States. You may want to mention the fact that there are a substantial number of unplanned babies in the U.S., indicating less than ideal control over childbearing even in this country. If this point is raised you may want to contrast responses available to people in the U.S. with those available to an Indian couple.

7. How does the situation in India compare with that in the U.S. in regard to why people have children and the number they do have?

   * People in each society must concern themselves with a variety of pressures. In the U.S. more options are open to people, helping reduce pressure for childbearing. In addition, status factors and economic advantages and disadvantages are different. In the U.S., social security, restriction of children for the job market, attention to equal employment opportunities for women, the high economic cost of maintaining and educating children, our urbanized way of life, and relatively high health standards and low child mortality levels tend to keep family size down. These things do not exist in India. Rather, their opposites are true. This keeps family size up.

TEACHER NOTE

If time permits, you may want students to consider the following exercise in class. Otherwise, it can be assigned for consideration as homework.

* EXERCISE & ASSIGNMENT *1-5 minutes* *

* APPLICATION EXERCISE

1. Problem described and discussed (if time permits).

   A. From the government's viewpoint, if it decided to set up a program to limit population growth in India, what kinds of problems might it encounter, especially at the village level?

      * Economic need for children.
      * Social status associated with children.
      * Lack of non-familial roles for women.
      * Relatively high mortality reinforces perceptions for many children.
      * Need to continue "name."

   B. What things might lend the government a helping hand in its efforts to reduce population?

      * Expense associated with large families.
      * Need to pay for education.
      * Opening up of industrial jobs in rural areas.

2. Assignment given.

   A. Think more about these two questions.

B. Write your answers to these questions for use in class tomorrow.

C. Tomorrow we will look more closely at population from the government's perspective in India.

3. Optional reading assignment: The Woman in White.

TEACHING ACTIVITY 5.4 DEALING WITH POPULATION GROWTH ON THE LOCAL LEVEL

PURPOSE

The purpose of this lesson is to confront students with the problems inherent in organizing village level, family size modification programs in countries such as India.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Identify the things within an Indian village that might facilitate or retard efforts to modify the number of children families desire to have.
2. Identify activities that can be used to attempt to (1) change family size values in India and/or to (2) encourage people to have smaller families in India.
3. Discuss the relative advantages and disadvantages of these types of programs: (a) voluntary, service-oriented and/or educative programs, (b) persuasive programs, (c) incentive programs, and (d) coercive programs.
4. Generate a list of activities for use at the local level in India and defend the efficacy and propriety of the programs generated.

TEACHING SCHEDULE

Review-Relate	5 minutes
Exercise	25-40 minutes
Discussion	15-20 minutes
Optional Assignment	

TEACHER NOTE

Time required for the exercise for this lesson may vary from class to class. In some classes an additional day may be required for discussion.

TEACHING AIDS

Teacher Version of
Student Activity Book H

Optional: Clear Transparency Acetate

A/V Equipment
Overhead project
(Optional)

LEARNING AIDS

Student Activity Book H
Optional Reading: The Woman in White

TEACHING PROCEDURE

* REVIEW-RELATE *5 minutes* *

* INTRODUCTION: MAJOR POINTS

1. Summarize previous lessons. Class has studied life in rural India. Students should now understand some of the reasons people desire large families, as well as difficulties faced in limiting family size.

2. Overview: In today's lesson students will look at population issues from a different perspective--that of a person who has responsibility for lowering India's rate of population growth.

3. Objectives: After today's lesson students should be able to do tasks listed on the cover of the Student Activity Book H.

   A. Distribute Activity Book.

   B. Allow students to read objectives (or read them to students).

   C. Answer questions about objectives.

* EXERCISE *25-40 minutes* *

* POPULATION PROGRAM EXERCISE

1. Introduce exercise: Have students read "Overview" and "Role and Assignment" sections of exercise.

   A. Point out to students they will work first as individuals and then as part of a team.

   B. This mode of operation is fairly common and is often actually used in developing programs of various types.

2. Step 1: Clarifying goal.

   A. Students, working alone, should read the question for step 1 and answer the question.

      1. The purpose of this question is to make sure students understand the goal.

      2. A clear understanding of the outcome(s) a policy or program is to produce is always needed for successful program formulation.

      3. Allow five minutes (if required).

   B. Question: "State in your own words what the government of India wants you to do."

      * Reduce average family size from 5-6 children to 2-3 children.

      * Help reduce rate of population growth.

      * Think of activities for rural villages that will encourage people there to have fewer children.

   C. Question: Why is it important to have your goal clearly in front of you when trying to do something?

      * Activities can be planned toward accomplishment of that goal.

      * It enables program planners to know where they are going and to use the goal as a benchmark to evaluate their progress.

      * The goal gives focus to one's effort.

3. Step 2: Identifying change facilitators and restraints.

   A. Phase 1: Individual activity.

      1. Students should answer the question for Phase 1 on an individual basis. Students should list as many ideas as they can think of for each column on the page.

      2. Students are to consider life in rural villages and to consider things in village life that might facilitate or retard efforts to reduce average family size. By under-

standing a community, students can better plan and coordinate potentially effective activities within the community.

a. The left-hand column should contain a list of things that encourage small families.

b. The right-hand column should contain a list of things that encourage large families.

c. A maximum of five minutes should be allowed for completion of this activity.

B. Phase 2: Group activity.

1. Divide students into groups of 2-5. Each group represents a team of population experts attempting to analyze things in village life that may facilitate or retard efforts to reduce average family size in India.

2. Have students pool the information they listed during Phase I. The result of this pooling should be completion of a group master list of things that facilitate or retard fertility decline.

a. Forms for the master listing are included in the activity book (forms A and B).

b. Students should look at forms carefully to make sure they are using proper form.

c. Students should use only the left-hand columns at this stage of the exercise.

TEACHER NOTE

You may want to draw copies of these forms on the chalkboard. They will be helpful in clarifying the directions and during the discussion that occurs after the exercise is complete.

It is also recommended that each group (if composed of more than two members) appoint a person to serve as recorder and to take charge of completing the group's master work sheets.

3. At the end of 5-10 minutes students should begin work on step 3. No discussion between steps 2 and 3 is required, but it may occur if you wish.

4. Step 3: Overcoming obstacles to change.

   A. Overview: Point out to students that successful program planning implies that ways are found to overcome obstacles to change and to utilize change facilitating factors as best as possible. In this part of the exercise students are required to generate a set of activities they believe will help reduce family size in rural India.

   B. Have students, as quickly as possible, assemble the "Suggestion Deck" found in the appendix to the activity book. This can be used to help stimulate thinking about program activities.

   C. Have students continue working in groups. Each group should generate a list of activities that might overcome each obstacle to change mentioned on the master list. Activities taking advantage of change facilitating aspects of village life should also be listed.

      1. Activities should be listed in right-hand columns of forms A and B across from the impeding or facilitating factor to which they relate.

      2. Students should list as many possible activities as possible regardless of their nature. Possible effectiveness, appropriateness and ethical suitability of various activities will be considered next, so time should not be given to these concerns at this point.

      3. 5-10 minutes should be allowed for this activity.

TEACHER NOTE

In some classes it may be necessary to have a class discussion at this point in which each group shares its list of activities with other groups. From this a master list of activities can be written on the chalkboard (or typed on a ditto and distributed at the next lesson if another day is required to finish the lesson).

In many classes, however, the students may proceed directly to the next step without need for class discussion.

The decision to stop at this point for a discussion or to continue with the small group work should be based upon the needs and interests of the students and upon their ability to effectively work in small groups.

5. Step 4: Activity selection and program generation.

   A. In any program planning activity, a stage is reached where alternative activities must be examined for their appropriateness and suitability and where, from this set of alternatives, a limited number of activities must be selected for inclusion in one's program. Students face that task in this stage of the exercise.

   B. Have students continue working in groups. Each group should now select from their list of possible activities those activities which they would recommend the government of India support.

      1. Activities should be evaluated on the basis of presumed effectiveness, suitability for the culture in which they are to be used, and ethical acceptability to students.

      2. Activities selected should be presumed to be individually effective and should be capable of reinforcing one another (i.e. activities should not work against one another or be contradictory in nature).

   C. Activities selected should be written on the worksheet for step 4.

      1. All students in the group must agree with the set of activities selected for the group's program and all students in the group must be prepared to defend the group's program.

      2. Reasons must be given for the selection of each activity.

         a. These should be listed in the right-hand column of the worksheet opposite the activity to which they pertain.

TEACHER NOTE

A variety of different types of activities may be listed. Some may be potentially effective. Some may not. It is suggested that students be assigned to research (a) what activities countries such as India, Indonesia and the Philippines are currently sponsoring in order to influence their fertility levels.

A few sample activities and reasons are listed below. A larger list is given in the Teacher Version of Student Activity Book H. The items listed are only suggestive. Activities other than those given for illustrative purposes may be expected.

* Activity	* Reason
-- Population education through schools.	People lack knowledge about population growth and implications in their country.
-- Field worker program.	People don't know about problem; need information and motivation on face-to-face basis.
-- Free services. (family planning)	People are poor (can't afford fertility control).

* DISCUSSION *15-20 minutes* * * DISCUSS PROGRAMS GENERATED BY GROUPS

TEACHER NOTE

If time permits you may want students to write their programs on the chalkboard. Otherwise, each group should report on the type of program it has developed. While each group reports you should try to list the main features on the chalkboard or on a transparency so sets of activities can be compared. In discussing these programs students should explain why various activities were selected and grouped together to form a program.

1. Groups present programs: Have each group briefly describe the activities it selected for inclusion in India's population program.

   A. Have class discuss activities selected.

   B. Examine reasons for activities selected by each group.

   C. Have students consider if any activities or reasons contradict one another (i.e. do activites add up to a coordinated set?).

2. Class generates class program: Have the entire class as a whole attempt to generate a set of activities that the class--as a body of experts--would recommend to the Indian government.

   A. List activities on chalkboard as students suggest them.

   B. Have students discuss presumed effectiveness and appropriateness of activities suggested.

   C. Have students discuss ethical acceptability of various proposed activities.

   D. Attempt to generate a list of activities that the entire class is willing to support and defend. If this proves impossible, attempt to have class resolve how the issue should be decided (e.g. by vote? by letting teacher decide? by compromise? etc.).

* OPTIONAL ASSIGNMENT * * ASSIGNMENT POSSIBILITIES

TEACHER NOTE

Several possible assignments can be given following this lesson.

1. Follow up on this lesson.

A. Students may read The Woman in White reading if they haven't done so previously. This reading is about a population field worker in India.

B. Students may research India's program to control population and describe activities supported by the government in its effort to curb population growth.

TEACHER VERSION

Instructional Objectives

After this lesson you should be able to do these things:

1. Identify the things within an Indian village that might facilitate or retard efforts to modify the number of children families desire to have.

2. Identify activities that can be used to attempt to (1) change family size values in India and/or to (2) encourage people to have smaller families in India.

3. Discuss the relative advantages and disadvantages of these types of programs: (a) voluntary, service-oriented and/or educative programs, (b) persuasive programs, (c) incentive programs, and (d) coercive programs.

4. Generate a list of activities for use at the local level in India and defend the efficiency and appropriateness of the programs generated.

OVERVIEW

This exercise consists of four steps. Each is part of a process for systematically planning a population program to slow population growth in a less developed country. The exercise builds on your knowledge of life in rural India.

ROLE AND ASSIGNMENT

You are a population expert. You are part of a team helping the government of India. Your job is to help plan a population program for villages in rural India. The goal is to reduce family size from an average of 5-6 children to an average of 2-3 children.

::STEP 1::

STEP 1: CLARIFYING THE PROBLEM

INDIVIDUAL ACTIVITY
TIME: 5 MINUTES

State in your own words what the government of India wants you to do.

Problem: *Help reduce average family size in rural India from an average size of 5-6 children to an average size of 2-3 children.*

::STEP 2::

STEP 2: FORCES FOR AND AGAINST CHANGE
PHASE 1: INDIVIDUAL ACTIVITY

TIME: 5 MINUTES

Directions: Your goal is to reduce average family size in rural India.

Think about life in rural India. What things encourage people to want small families? What things discourage small families?

List as many things as you can think of in the spaces below.

Things that ENCOURAGE Small Families	*Things that DISCOURAGE Small Families*
Modernization and industrialization bring new pressures and values, create new opportunities and require new skills.	*Lack of role alternatives for women other than motherhood.*
Lowering of death rates, especially for children, as a result of improved medicine sanitation and nutrition creates pressures on family welfare.	*Lack of perception (or confidence) that death rates are declining and that more people are surviving than in days past. Moreover, death rates are still relatively high.*
Improved techniques for family size regulation are increasingly available.	*Modernization makes children less reliable, so more may be needed to ensure some sons help their parents in old age.*
Government activity promotes adoption of a small family norm.	*A strong economic need for children exists, especially for the aged.*
	Religion and custom reinforce value of large families.
	Status, power and well being are often associated with many children.

::STEP 2::

STEP 2: FORCES FOR AND AGAINST CHANGE
PHASE 2: GROUP ACTIVITY: GENERATING A COMMON LIST

TIME: 5-10 MINUTES

Directions:

A. Form a team of 2-5 experts. Each expert should share his answers to these two questions:

   (1) What things encourage small families in India?

   (2) What things discourage small families in India?

B. As a team use the forms on the next two pages to prepare a master list of things that encourage or discourage small families.

   1. Form A: Things that encourage small families should be listed in the left column of Form A.

   2. Form B: Things that discourage small families should be listed in the left column of Form B.

C. After you list all the things you can think of on either Form A or Form B, go to step 3.

Form A: Group Reaction Sheet: THINGS THAT ENCOURAGE SMALL FAMILY SIZE

Lesson 5.4
Form A
Teacher Version

Step 2: Identifying Things That Facilitate Change	Step 3: Taking Advantage of Things in Village Life That Facilitate Change
What things in village life encourage small families?	*What can be done to take advantage of each thing mentioned that encourages change? What activities can be organized?*
	Educate people about modernization and the impact on their lives through radio, posters, volunteer workers.
	Encourage people to move to cities where cost of housing may discourage children and where traditional values are not as strong.
	Inform people through information campaigns conducted by field workers that death rates are dropping and so family problems are different than they were in the past.
	Set up family planning centers and find ways to encourage people to use them.

Form B: Group Reaction Sheet: OBSTACLES TO A SMALL FAMILY

Lesson 5.4
Form B
Teacher Version

Step 2: Identifying Restraints to Change

What things in village life discourage small families?

Step 3: Overcoming Restraints to Change

What activities can be organized to overcome built-in resistance to small families in rural India?

Reduce economic need for children by providing for people in old age (i.e. social security).

Inform people that fewer children need be born per family to ensure that at least one son survives since death rates have decreased.

Work with important people in communities to get their help in disseminating knowledge about fertility control techniques and the value of small families.

Use radio, posters, etc. to inform people of country's need to reduce population growth.

Encourage more job opportunities for women by encouraging government and private employers to hire and promote women.

Educate children to make them aware of population issues and the implications of population on their welfare.

Pay people to not have children.

::STEP 3::

STEP 3: OVERCOMING OBSTACLES TO CHANGE

GROUP ACTIVITY
TIME: 5-10 MINUTES

Directions:

1. Assemble the deck of cards found in the appendix.

2. Use this deck to give you ideas about how to find ways to encourage people in India to have small families.

3. As a team try to think of one or more activities that might take advantage of each thing listed on Form A. Write each possible activity identified in the right column of Form A.

4. As a team try to think of one or more activities that might overcome or cancel out each thing listed on Form B. List each activity for overcoming restraints to a small family in the right-hand column of Form B.

5. List as many change producing activities as you can think of in the right-hand columns of Forms A and B.

::STEP 4::

STEP 4: ACTIVITY SELECTION AND PROGRAM GENERATION

GROUP ACTIVITY
TIME: 5-10 MINUTES

Directions:

A program is a group of activities selected and organized to achieve a goal. The activities in a program should work to support one another.

Activities in a program should be effective by themselves or in combination with other activities. They should not be unreasonably expensive or difficult to carry out, and they should be appropriate for the culture they relate to.

1. You are now to construct a population program you would recommend to the government of India for use in its rural areas.
2. Look at the activities you listed in Forms A and B. Select those activities you would recommend to the government.
3. Describe each activity below and state why you would recommend the activity.
4. Each activity listed, as well as each reason, must be acceptable to each member of your group. All members must agree.

Activity Recommended	Reason for Recommendation
I. Education & Communication	*Inform people--young and old--about need to lower population growth, families' role in doing this, and benefit that will result to individual and society if it occurs.*
--Schools: give information to children and adults on population issues and/or family planning.	*Children can be taught so they can consider implications of their acts when adults.*
Educate leaders on policy issues.	*Leaders set policies & influence people. They must be informed.*
-- Radio: educate people about population changes, need for small families, availability of services.	*Radio can convey message inexpensively to many people.*
-- Posters: give information on where to get services, explain how to control family size.	*Posters can provide information to people who can read.*

150

Activity Recommended	Reason for Recommendation
-- *Fieldworkers: send people to villages or use local people to give talks about population issues.*	*Best type of education occurs on a face-to-face basis. People who know about population can help educate others.*
II Persuasion	*Education often does not motivate. Persuading people to act may be required.*
Schools	*Can reach young people, but only limited number since most young people are not in school. Moreover, educators may resist. However, have captive audience.*
Radio	*Radio can reach many people inexpensively. It can help create an atmosphere supportive of reduced family size, use of fertility control methods, increased opportunities for women, etc.*
Face-to-face	*People to people contacts are the strongest method of persuasion. Pressure can be exerted on people to behave in certain ways.*
III Incentives	*People can be encouraged to have small families by various types of rewards or payments. These incentives can offset the expense, financial risk or difficulties involved in limiting family size in India.*
Contests for small family mother of the year.	
Direct payments to people to not have children (e.g. delay childbearing, limit numbers, undergo sterilization, etc.).	
IV Direct or Indirect Coercion	*People may not do what country requires. In this case, especially if a society's survival is at stake, people may have to be forced to have small families. Coercion is designed to force, through threat of punishment, accomplishment of a national goal.*
People can be forced to be sterilized.	
Abortions may be required if two or three children are already living. Fines or imprisonment may be imposed on people with more than two or three children.	
V Changes in Society	*Changes can be made in society to bring about things that influence population. Educated women are likely to have fewer children, have more opportunities outside the home, etc. If women are able to pursue careers, some may delay or reduce number of children they have. An educated population can better regulate its family size and may want fewer children.*
Women can be provided education.	
Job opportunities can be given to women.	
Level of education can be raised for all people by building schools, devoting more resources to education.	

APPENDIX

Use the materials in the appendix to assemble the Suggestion Deck. This deck should be used to help stimulate your thinking about policy alternatives as part of Step 3 of this exercise.

Do people realize the government's position and the reason behind it?

Posters can convey messages

Teams can travel through the countryside educating and helping people

People can be paid to undergo sterilization

People
can be
forced
to limit
their family
size

Attempts
can be made
to
increase
career opportunities
for women

???

Children
can be
educated
about
rapid population growth
and
its
implications

Some people
are
more influential
in communities
and
influence
opinions

Fear,
suspicion
and
rumor
can undermine
efforts to help people

Many people
who want to limit
their family size
don't know how

Do people understand
how their lives
are
affected by population
changes?

Radio can
inform and educate
people

Face-to-face contact
is
the most effective form
of communication

Lack of knowledge can
discourage behavior

The easier it is
to obtain services,
the more people are
likely to take advantage of
them

Population Inquiries
6 - International Approaches
to Population Policy

TEACHING ACTIVITY 6.1 WHAT SHOULD INDUSTRIALIZED COUNTRIES DO?

PURPOSE

The purpose of this lesson is to enable students to see that views differ regarding what, if anything, industrialized countries can or should do to counter rapid world population growth.

LEARNING GOALS

After completing this activity, students should be able to:

1. Identify ways in which industrialized nations might help developing countries in dealing with rapid population growth.
2. Discuss how views regarding what industrialized countries should do might differ from one culture to another.
3. Discribe the view of a non western person and attempt to explain that view as well as react to it on the basis of one's own values.

TEACHING SCHEDULE

Review-Relate	2 minutes
Discussion	5-10 minutes
Reading Activity	10-15 minutes
Discussion	20-25 minutes
Summary	1-5 minutes

LEARNING AIDS

Reading: A Non Western View of What the United States Can Do to Help Reduce World Population Pressures

TEACHING PROCEDURE

* REVIEW-RELATE *2 minutes* *

* INTRODUCE LESSON: MAJOR POINTS

TEACHER NOTE

If the class did not complete the previous lesson, that should be done before initiating this lesson.

1. Review: Yesterday the class considered what type of activities might help reduce family size in rural India.

2. Question: What were the major activities described in the program the class developed?

   * Review activities described in previous lesson and list on chalkboard.

3. Developing countries have many needs.

   A. Point out that in developing countries such as India there are many competing demands for existing dollars. Population related activities must compete for funds with health care, education, housing, road building, industrial development, sanitation, sewers, water purification, etc.

   B. In addition to lack of financial resources, many developing countries also lack trained people with expert knowledge about a subject.

   C. Consequently, help is often required in terms of financial support for launching and maintaining programs and in terms of training and providing expert personnel to aid in program development and operations.

4. Today's lesson will consider what a country such as the United States might do to help a developing country deal with rapid population growth.

   A. The class will consider this from two perspectives--that of a person in the U.S. and that of a person in a developing country.

* DISCUSSION *5-10 minutes* *

* U.S. AID--AMERICAN PERSPECTIVE

1. Have the class examine the list of activities the class thought India should engage in as part of its population program.

2. Question: How might the U.S. aid India in carrying out its program?

   * Sample answers based upon current activities and writings of various people include:

   -- Provide financial aid.
   -- Provide equipment.
   -- Provide information and family planning devices.
   -- Provide advice and expert help.
   -- Provide fellowships to train Indians in population related areas.
   -- Set an example for Indians to follow (by reducing its own rate of population growth).
   -- Support research activities to increase knowledge about population related issues and about ways to reduce population pressures.
   -- Facilitate information exchanges between people working in areas of population.

TEACHER NOTE

You may want to list these activities on the board. They may be related to specific activities if you desire, or they may simply be listed in the order of their having been suggested.

* READING *10-15 minutes* *

* A NOW-TRADITIONAL NON WESTERN VIEW

1. Introduce reading: Point out that students are to read part of an article by a person (from Malaysia) who has some ideas about what countries like the U.S. can do to help developing countries. Students are to read the article and answer the five questions asked on the cover page.

2. Distribute reading and review questions on the cover page.

   A. Students are to answer the questions as they read.

   B. Questions will be discussed in class.

TEACHER NOTE

You may want students to prepare written responses to the questions. These should be collected prior to discussion and reviewed for accuracy. Some teachers may not feel the need for having students prepare written responses. If so, students should simply discuss the questions on the cover page.

3. Allow students sufficient time to complete reading and answer questions.

* DISCUSSION *20-25 minutes* *

* CLASS DISCUSSION

TEACHER NOTE

Review each question on the cover sheet of the reading one at a time. Questions 4 and 5 should be allotted the most time. They are questions that permit a variety of views. Alternative views should be encouraged. As with earlier lessons, students should be required to provide a justification for any position they take in regard to Questions 4 and 5.

1. As a class students should answer each question.

2. Question 1: "What conditions does the author link to population growth?"

   * Slums
   * Crowding
   * Congestion
   * Poor living conditions
   * Crowded high-rise apartments
   * Hunger

3. Question 2: "What 'solutions' does the author offer us to the problems he associates with population?"

   * Migration (to other countries)
   * Increased death rates (by starvation, atomic war, radiation, withdrawal of medical services, war, etc.)
   * Populate other planets
   * Food technology advancements (artificial food,etc)
   * Birth control
   * Economic solution involving redistribution of world wealth (industrialized countries give fraction of their wealth to developing countries)
   * Aid
   * Investments
   * Technical advice

4. Question 3: "What 'solutions' to population pressures does the author favor?"

   * Economic--a 10 per cent redistribution of wealth by industrialized nations (through aid, investment, technical help, etc.)

5. Question 4: "How do you react to the 'solutions' the author favors? Do you think that the author has chosen the most reasonable solution?

   * Position plus reason stated by student.

TEACHER NOTE

In eliciting student response to this question you might want to refer to the list of aid activities students discussed at the beginning of the period.

Students should be encouraged to freely discuss the author's views relative to their own positions. Discussion should go beyond mere opinion trading and students should be required to provide reasons for the positions they take. Factual aspects of various value statements should be challenged and students, if sufficient interest develops, should be encouraged to engage in research to substantiate the factual basis underlying their positions.

6. Question 5: "What things in your background and the author's might cause disagreement between you?"

   * Sample answers might include:

     -- Being raised in different culture leads to different values.
     -- Different perception of cause of "problem."
     -- Different views as to how the ill effects of rapid population growth can be counteracted.
     -- Different views as to extent to which developed countries should help developing nations.

* SUMMARY *1-5 minutes* *

* SUMMARIZE POINTS DEVELOPED IN THE LESSON

1. Developing countries often need aid from developed countries if they are to tackle problems such as rapid population growth.

2. The type and amount of aid requested and offered may or may not correspond, depending upon how closely various countries agree that (1) there is a problem, (2) that the problem is caused by particular things and that (3) a certain type of solution is desirable and possible.

   A. Often, different values lead to disagreement over these things.

B. This causes the aid process to be complicated and full of controversy.

C. Often, the "donor" countries feel that they are doing all they can, if not too much, while recipients feel that donors are doing too little (if not the wrong things).

3. Providing aid is a complicated, difficult, but necessary task.

Population Inquiries
6 - International Approaches to Population Policy

TEACHING ACTIVITY 6.2 POLICY DECISIONS: THE U.S. INTERNATIONAL ROLE

PURPOSE

The purpose of this lesson is to enable students to understand some of the value judgments that are involved in providing assistance to developing countries.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Identify problems faced by a decision-maker who must decide on how to help a developing country deal with its population changes.
2. Discuss the value implications of different population assistance activities as seen from the perspective of people in the United States.
3. Describe current U.S. approaches to international assistance in the area of population and to take a position regarding its appropriateness and adequacy.

TEACHING SCHEDULE

Presentation	2-5 minutes
Exercise	10-15 minutes
Optional Activity	15-30 minutes
Discussion	10-15 minutes
Reading	10-15 minutes
Discussion	10-30 minutes
Assignment	3-5 minutes

TEACHER NOTE

This lesson may require two days depending on the length of the discussions and whether or not the optional activity is included.

LEARNING AIDS

Student Activity Book I
Reading: "Facing Up To Population in 1974"
Values Clarification Exercise: Prospects for ZPG--A World View

TEACHING PROCEDURE

PRESENTATION
2-5 minutes

* DEALING WITH WORLD ISSUES

1. Many problems facing nations throughout the world are global problems. Population, pollution, energy, war-peace issues touch upon every nation.

2. The United States, for both self-interest and humanitarian reasons, provides substantial amounts of foreign assistance to developing countries throughout the world.

3. In providing aid, important and difficult choices must be made about what countries to help, the manner in which help should be given and the amount of aid required.

4. Today's lesson will look at some of the problems involved in trying to help developing countries deal with their own problems.

EXERCISE
10-15 minutes

* ALLOCATING U.S. ASSISTANCE

1. Distribute Student Activity Book 1.

2. Review objectives: Have students review the objectives for the exercise that are printed on the cover.

3. Introduction: Have students read the introductory statement about the United States' role in world affairs.

4. Have students read directions for the exercise and the role description.

   A. Students are population experts working for AID.

   B. The "experts" are allowed $100,000 to spend. They may want to save some of it for projects that develop during the year.

   C. Students must decide how much of the $100,000 they want to spend now, and then they must allocate the amount they want to spend. They can spend it all on one project, or they can spread it over several projects.

5. Have students form 2-person teams and initiate the exercise. The exercise should be completed as rapidly as possible.

   A. The exercise builds on knowledge that has been developing over the last few lessons. Consequently, students are expected to be able to make rapid and informed decisions.

   B. The time alloted for this phase of the exercise should not exceed 10-15 minutes.

* *OPTIONAL ACTIVITY 15-30 minutes* *

* *OPTIONAL CLASS SIMULATION*

The decision-making activity completed as part of the exercise above can be modified to become a game. This game can be played in addition to the exercise or as an alternative. The modification involves generating a game board and paper money to supplement the exercise materials.

In the game, each request for funding is represented by a space on a game board. The game board can be made of tagboard or other large size paper. Student teams are given paper money. The amount given to each team depends on the number of teams. The total money given to all teams should amount to $100,000. Teams must decide how much of their money should be given to each project. They can also work to influence the total amount of money given to each project. For example, opportunities can be given to allow students to formally and informally attempt to con ince other students that certain choices are preferable. Bargaining and politicking can also occur.

An added modification would involve generating role cards that require students to support particular positions (and/or oppose other positions).

Group discussion can follow the completion of the game. Discussion can deal with the types of choices made, problems inherent in deciding among competing requests, strategies that were effective in getting one's program supported, etc.

* DISCUSSION *10-15 minutes* *

* CLASS REVIEWS EXERCISE

1. Allow several teams to describe how and why they allocated funds to the various projects. Discuss how the various teams allocated their funds. Attempt

to determine if a pattern emerged or if teams varied widely in terms of the projects they supported and the level of support given.

2. Question: Given what students learned about India, what types of projects "make sense" in terms of Indian culture, what is known about how people change, and what is practical? (e.g. Does it make sense to distribute textbooks to masses of people? Probably not, since most people are illiterate.)

   * Projects that attempt to:

     -- Alter social conditions (e.g. provide women choices other than childbearing, provide social security for old age, lower child mortality in visable fashion, etc.).

     -- Motivate people who want small families to control their fertility (e.g. support face-to-face field worker, media communications).

     -- Provide information and/or services to people who want to control their fertility.

     -- Educate young people so that they will be more knowledgeable about population trends and the forces in society that have made high fertility an impediment to social development (e.g. fund preparation of school materials).

3. Question: In thinking about a program (i.e. a set of coordinated activities oriented toward a goal) should we try for a broad, wide-ranging program or is it better to concentrate in depth on a small range of activities?

TEACHER NOTE

No correct answer is possible to this question. Rather, advantages and disadvantages to each approach should be elicited and, if desired, listed on the chalkboard.

4. Question: What if AID wanted to influence and help a number of countries throughout the world at one time? How might it try to do this?

   * Sample answers include:

     -- Provide regional aid.
     -- Support United Nations' activities.
     -- Sponsor regional conferences, etc.

* READING *10-15 minutes* *:

* READING: FACING UP TO POPULATION IN 1974.

TEACHER NOTE

Depending on time this reading may be completed in class or assigned for homework. If assigned for homework, it should be discussed in detail at the next class meeting.

1. Distribute reading: This reading serves as a type of "feedback" for the previous exercise and discussion. In the reading U.S.-AID activities in the population area are briefly described.
2. Point out that the reading touches on several of the issues being discussed, as well as wome others.
3. Have students read the directions and questions on the cover page. If you desire, instruct them to prepare written answers to the questions. Otherwise, ability to orally respond to the questions will be sufficient.
4. Allow 10-15 minutes for students to read the article.

* DISCUSSION *10-30 minutes* *

* DISCUSS READING

TEACHER NOTE

If time is pressing you may simply want to discuss question 4 on the cover sheet. This can be related to the previous discussion as well as to yesterday's lesson about international assistance from a non western perspective

1. Review questions on cover page if time permits. The questions, with the exception of the last, can be answered on the basis of the information in the reading. The last question contains an evaluative component.
2. Question 1: What is "World Population Year" and how might it contribute towards reduced population growth?
   * Series of conferences throughout the world dealing with population and attempting to focus attention on population issues.
   * Attempt to highlight population issues and publicize them.

* Sharing of information and mutual problem solving.

* Attempt to show governments and people of the world that concern with population is a shared and legitimate area of inquiry, etc.

3. Question 2: In what ways are the population problems of developing and industrialized countries similar and different?

   * Developing countries: Face rapid growth , high birth rates.

   * Industrialized countries: Face uneven population distribution, increasing urbanization.

4. Question 3: What types of programs are now underway to deal with world population growth?

   * Provision of contraceptives and family planning services to developing countries.

5. Question 4: What is the main focus of the AID program as described in the article? Is the AID program sufficient or can you think of ways to improve it? (How?)

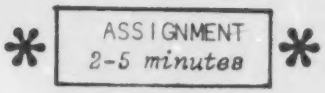
   * Part 1: AID sponsors a variety of activities, but its major effort involves support of family planning programs.

   * Part 2: Sample responses reflecting student positions:

     -- AID needs to be concerned with broader issues related to motivation and social change since family planning will help reduce population growth in situations where people <u>want</u> large families.

     -- AID should not be involved with family planning at all since family planning is not right (for religious, social, political reasons, etc.).

     -- AID's program is appropriate since it helps people who want to control their fertility.



* ASSIGNMENT

1. Distribute Values Clarification exercise.

2. This reading will be briefly discussed at the next class meeting.

3. In addition, there will be a brief evaluation of the course tomorrow. If a more complete evaluation is desired, students should be notified of this.

TEACHING ACTIVITY 7.1 CONCLUSION AND EVALUATION

PURPOSE

The purpose of this activity is to present alternative projections of world population trends and to consider possible changes future increases in population may require in our lifestyles. In addition, students will be required to consider issues related to population change as an evaluation activity for the unit.

LEARNING GOALS

After completing this activity, the student should be able to:

1. Describe at least three different projections of future world size and state the assumptions upon which each is based.
2. Explain why it is unlikely that world population will stop growing for at least the next several generations.
3. Consider ways the student may personally adapt to the more populated world of the future.

TEACHING SCHEDULE

Presentation	5-10 minutes
Evaluation	30-35 minutes

TEACHING AIDS

A/V

Filmstrip: Systems Man Meets the Population Fiendy

Optional Transparencies
1. Projections of World Growth
2. World Composition 1970-2100
(Transparencies made from handouts.)

A/V Equipment
Filmstrip projector
Overhead projector

LEARNING AIDS

Optional Data Sheet: Projected World Composition 1970-2100.

Evaluation form for unit.

TEACHING PROCEDURE

* PRESENTATION *5-10 minutes* *

* Review

1. Have students take out Values Clarification assignment materials from previous lesson and turn to graph of world population projection.

TEACHER NOTE

You may want to use an overhead projector and project a copy of the graph students examined in their homework assignment.

2. Clarify projections: Quickly check to see if students understand how to read the projections and to interpret them.

   A. Projections are based upon certain assumptions about the future and upon assumptions about how changes in one or more social processes (e.g. birth rate) influence other things.

   B. By changing the assumptions made about things, we change the type of projections that we get. For example, Projection 1 assumes that between 1980-1985 people throughout the world will begin having just enough children to replace themselves (upon their own deaths) and to replace people who die without children. Projection 2 assumes this occurs between 2000-2005; Projection 3: 2020-2025; and Projection 4: 2040-2045.

   C. Projections dealing with population increases or decreases can be fairly accurate since world wide increases are based upon births or deaths. However, it is risky to assume that observed trends will remain unaltered over many years. For this reason several projections based upon different assumptions are usually attempted. These projections, in a sense, may provide a person with an idea of the boundaries of the problem with which one is dealing.

3. Have students consider the implications of the projections, all of which show continued world growth occurring into the next century even under the most optimistic projection (# 1).

   * World will have more people. Ways will have to be found to provide at least basic necessities for these people.

* Growing numbers of people may produce political turmoil and instability, especially in developing countries, as well as among nations of the world.

* New forms of social organization (ways of organizing life) are likely to be needed.

* New forms of personal interaction are likely to be needed.

* A new political framework for international relations may be needed. For example, the balance of world power may shift since industrialized countries (if they maintain current growth levels) will account for an increasingly smaller share of the earth's peoples.

TEACHER NOTE

If the class is interested in pursuing the topic further, you might want to devote more time to this topic. For example, you can distribute the optional Data Sheet for this lesson at this point. This Data Sheet shows how the world's population will be distributed by geographic area in 2100 as compared to now. In both the industrial nations of North America and Europe account for a minority of the world's people, however, the minority grows smaller with time. This raises the question of to what degree political and military power is associated with numbers of people (see lesson 4.2 exercises). In the present period industrial and technological advancement appear to be more important than mere numbers of people.

4. Summary: Even under the best of conditions the population of the world will grow for the next several generations, bringing many changes. How long population continues growing and how many people there will be when it stops depends upon when people around the world begin having just enough children to replace themselves and those without children.

   A. At the present time, people in the industrialized nations of the world are having families whose size is close to the level needed for "replacement."

   B. Families in the developing countries, however, still have many more children than are needed just for replacement of the parents and those who die without children.

C. It appears that population growth will be a fact of life that students will have to contend with all their lives. It is not an issue which will go away. Rather, its effects will be felt over and over again and in many ways.

* EVALUATION ACTIVITY *30-35 minutes* *

* EVALUATION

5 minutes

1. Introduction: Tell students they will now participate in an evaluation of how well the unit of instruction did its job. The evaluation will be based upon student knowledge and understanding of population issues and their bearing on our lives.

2. Procedures overviewed: The evaluation will be based on student end-of-unit reactions to the material presented the first day in the "Systems Man" filmstrip.

   A. Students will see the filmstrip.

   B. After the filmstrip, students will react to the issues discussed in terms of why Systems Man should or should not have been concerned with population issues and whether or not his actions were the right ones (given his concern).

TEACHER NOTE

Student responses may be written or, if students do not write well or prefer non-written evaluations, they may be oral (e.g. class presentation of views, private discussion/interviews with the teacher, etc.). Grades may be assigned for the evaluation or they may not be assigned depending upon your preferences and school policy. In general, the evaluation attempts to assess the impact of the unit rather than the student. If you want to elicit more detailed information about student knowledge, an additional evaluation activity is needed.

3. Explain procedures to students.

7 minutes

4. Show filmstrip: "Systems Man Meets the Population Fiendy."

5. Distribute evaluation forms to students participating in written evaluation.

20 minutes

   A. Allow 20 minutes for completion of the activity.

   B. Have students place their names on evaluation sheets.

C. After 20 minutes, collect the evaluation papers.

TEACHER NOTE

Papers should be graded on the basis of argument presented. Students should have provided reasons to support positions. Where positions were dependent upon factual information, the facts discussed should have been accurate. Issues that students may have touched on may span a wide range--economics, politics, ecology, mental health, food and nutrition, international relations, women's rights, etc.

In general, students should have demonstrated that population issues are complex issues that relate to changes in size, rate of growth (or decline), and distribution (urban-rural mix). Distribution issues pertain to growing world-wide urbanization and rural decline. Growth issues relate to rapid world growth spurred by high rates of natural increase in developing nations of the world. This growth was produced by a rapid lowering of death rates in developing nations in the past 40 years, particularly since 1950. Social conditions have not changed sufficiently in these countries to permit desired and achieved family sizes to drop to the levels present in the industrial countries. The challenge of limiting population growth now relates to finding ways of lowering birthrates to levels countries can adequately handle. Even under the most optimistic of assumptions--and barring a major catastrophe--world population size will grow for at least the next several generations.

The longer it takes for people to have just enough children to replace themselves and those who die childless, the longer it will take for the population to stop growing once "replacement" fertility is reached and the greater the numbers of people who will be living when world population growth stops and becomes constant.

Ways to encourage smaller families are limited, however. Knowledge does not exist as to how to lower family size desires and resources are limited for supporting "best bet" activities. The focus in recent years has been on encouraging family planning and providing birth control information and services. The focus is now changing, however, to stress attacking problems inherent in community structure and ways of life. Education, improved job opportunities for men, equality of opportunity for women, child care, urbanization and improved health and old age security are being seen as activities likely to lead to the motivation required for a reduction in family size. In this way it is believed that personal reasons and social needs will reinforce one another, rather than oppose each other.

UNIT EVALUATION

Directions: Answer any two of the four questions that follow.

Question 1: Think of the reasons why Systems Man might have been concerned about population changes. Explain whether or not you think Systems Man was correct in being concerned about population changes.

Question 2: Imagine Systems Man hired you to help the EM Force find ways to counter the negative effects of current population trends. What things would you suggest for (a) the United States, and (b) developing countries such as India?

Question 3: Which position or positions do you support? Explain why you take the position(s) you do. (You can choose more than one.)

_____A. Population is a problem for the U.S.

_____B. Population is a problem for the developing countries of the world.

_____C. Population is a world problem.

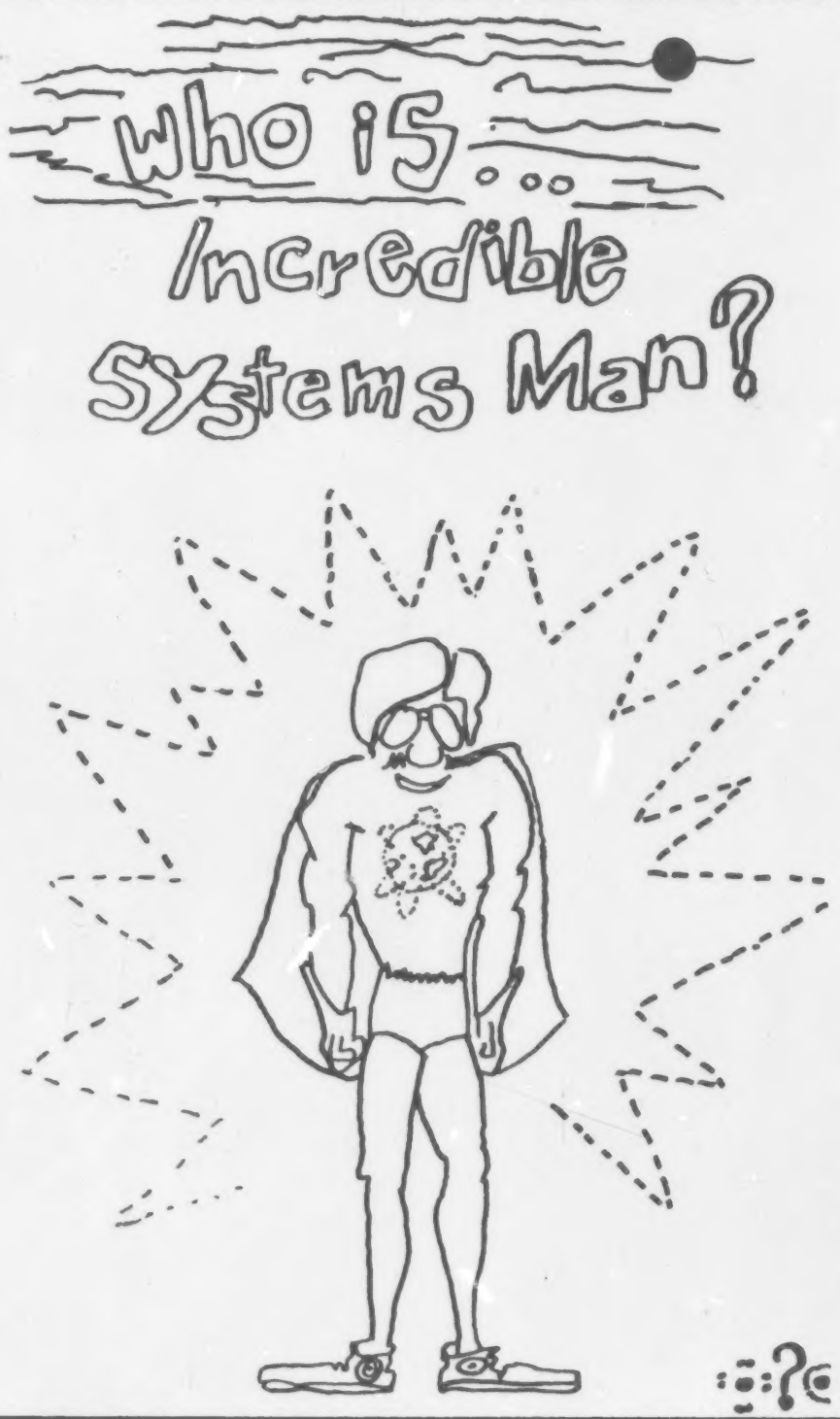
_____D. Population is not a problem.

Explain your choices:

Question 4: Population changes stretch into the future. To what degree are you responsible for the type of world which will exist 100 years from now?

STUDENT MATERIALS

the Fiendies are coming....
the Fiendies are coming..


Who is...
Incredible
Systems Man?

SYSTEMS MAN VS. THE POPULATION FIENDY

Individual Reaction Sheet No. 1.1

You have just watched a filmstrip about Systems Man, the EM Force, and the Population Fiendy. It is your job to think about the problems presented in the filmstrip and to help outwit the Population Fiendy and his gang of little fiendies.

Working by yourself, your mission is to provide information on each of these questions. (Time Limit - 5 minutes)

1. Why was Systems Man concerned about the activities of the Superweird Population Fiendy?

2. What are the three major problems facing the EM Force in its mission against the Fiendy?

3. In your opinion, which of the three problems above is the most serious? Why?

4. What can each one of the EM Force members do to fight the devilish Fiendy and his scurvy crew?

   * Loose Nut (EM Force Technologist)

   * Fred Fertz (EM Force Agricultural Scientist)

   * Fairy Tale (EM Force Creator of Life Styles)

   * Malcolm Nitz (EM Force Diplomat)

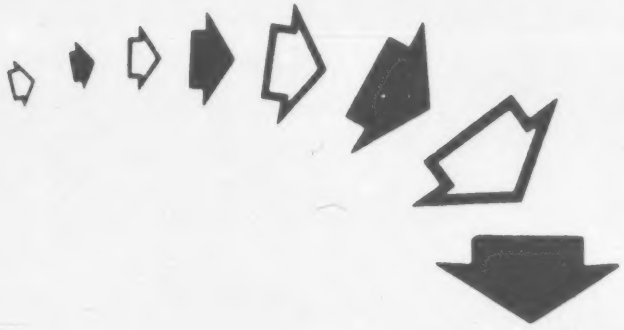
5. What things in the way people live will help the Population Fiendy fight the efforts of each EM Force member named below?

   * Loose Nut (EM Force Technologist)

   * Fred Fertz (EM Force Agricultural Scientist)

   * Fairy Tale (EM Force Creator of Life Styles)

   * Malcolm Nitz (EM Force Diplomat)



Instructional Objectives

After this lesson you should be able to do these things:

1. Explain how births and deaths affect the size of the world population.

2. Give a definition for the following terms and use them in solving problems relating to world population growth.

   a. Natural increase
   b. Natural decrease
   c. Stable-size population

3. Describe how the balance of births and deaths has changed throughout history and how this has affected population size over history.

4. Identify and explain how things such as advances in farming methods, medicine, nutrition, transportation and business management techniques have influenced the balance of births and deaths at various points in human history.

Cufer is a make-believe planet much smaller than the Earth. There were 300 million people living on Cufer in 1940.

All changes in the size of Cufer's population are due to births and deaths.

Look at the information in the table and then answer the questions. The questions test your understanding of these terms: Natural increase, natural decrease, and stable-size population.

Information about Cufer

Time Period	Number of Births (millions)	Number of Deaths (millions)	Difference Births & Deaths
1940 to 1950	30	40	-10
1950 to 1960	30	30	0
1960 to 1970	50	30	20

1. Which time period shows an example of natural increase?

   ___1940 to 1950 ___1950 to 1960 ___1960 to 1970 ___Can't Tell

2. How many people lived on Cufer at the beginning of 1960? (Write answer.)

3. When did Cufer have a stable-size population?

   ___1940 to 1950 ___1950 to 1960 ___1960 to 1970 ___Can't Tell

4. Which choice below best describes how Cufer's population changed between 1940 and 1970?

   ___Growth of 10 million due to natural increase.
   ___Growth of 20 million due to natural increase.
   ___Shrinking of 10 million due to natural decrease.
   ___Stable-size population between 1940 and 1970.

5. Experts predict Cufer will grow by 20 million people between 1970 and 1980. If there are 29 million births between 1970 and 1980, how many deaths will there be?

REACT! EXERCISE 2

DIRECTIONS: Read the TV script written for Malaysia. Then ask yourself each question listed below. Write a brief answer to each question based on your reading of the TV script. Questions and answers will be reviewed in class tomorrow. Your answers will be reviewed by the teacher and may be graded.

Question 1. What has happened to the number and balance of births and deaths through history?

Question 2. Why is the human population growing so rapidly at the present time?

Question 3. What problems do the Malaysians see resulting from rapid population growth?

Malaysia is a small, independent country in Southeast Asia, composed of two distinct regions separated by about 400 miles of the South China Sea. West Malaysia is located just south of Thailand on the Malay Penninsula, and includes Malaysia's capital city, Kuala Lumpur. East Malaysia is on the northwest coast of the island of Borneo. Malaysia's climate is equatorial, with an average annual rainfall of about 80" and temperature of just over 80 degrees.

Malaysia is both multiracial and multilingual. Nearly half of its inhabitants are Malay, more than one-third are Chinese, and one-tenth are of Indian-Pakistani origin. Aborigines, Eurasians, and Europeans make up the remainder of the population. Most of the Malays live in rural areas, while the Chinese inhabit the cities. Although Malay is the official language of Malaysia, English is also widely spoken.

Sixty-one per cent of Malaysia's population lives in rural areas. Nevertheless, Malaysia is highly urbanized compared with other Southeast Asian areas. Twenty-one per cent of the people live in cities of more than 50,000. In rural areas, government medical services have provided over 1,000 rural health centers, resulting in improved health conditions and disease control among rural Malaysians.

The standard of living in Malaysia is the third highest among Asian countries. Natural rubber production provides the basis of Malaysia's economy. More than one-third of the world's total natural rubber production comes from Malaysia. Tin is also exported and provides 40% of the world supply. Rice, coconuts, and timber from Malaysia's thick rain forests are also produced in lesser amounts.

POPULATION EDUCATION

An Educational Television Programme for

Teacher Orientation

Second Workshop on Population Education,

Kuala Lumpur, 1972.

Mass-media group:

1. Cik Vivian May Soars
2. Encik Sufian Ahmad
3. Cik Punithravathy Sellappah
4. Puan Hashimah bte Abdul Aziz

Adviser: Mr. Owen Leeming, UNESCO Consultant

Cast

1 male narrator

1 female narrator

1 comic mime

Duration: 25 minutes approximate

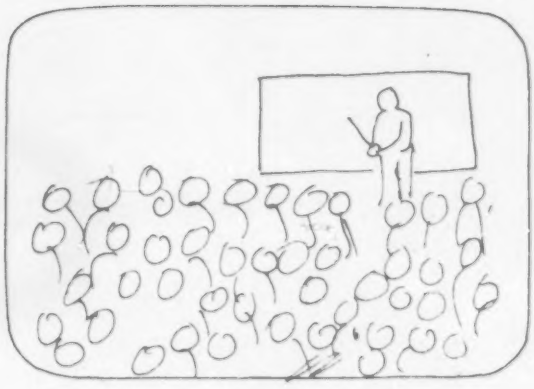
Indiana University
Population Education Project
1973

180187

POPULATION EDUCATION

VIDEO

VISUALS AND SOUND



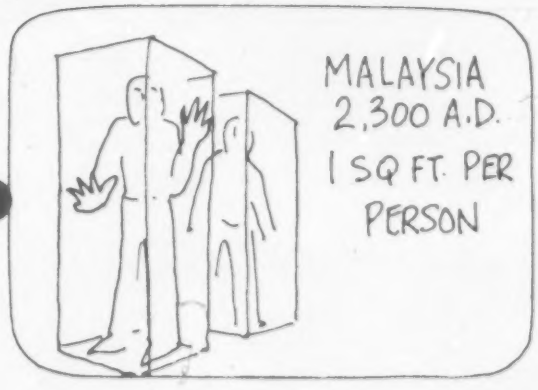
THE FOLLOWING SLIDES, FLASHING OR PULSING IN TIME WITH MUSIC, FOLLOW ONE ANOTHER:

(Music: counting song, or 'Old MacDonald's Farm' with the words suitably altered.)

1. A TEACHER BESIDE A BLACKBOARD, MIMING HARASSMENT.

2. AN OVERCROWDED CLASSROOM, WITH CHILDREN JOSTLING, MISBEHAVING.

3. DESKS, SEATS AND CHILDREN CRAMPED TOGETHER.



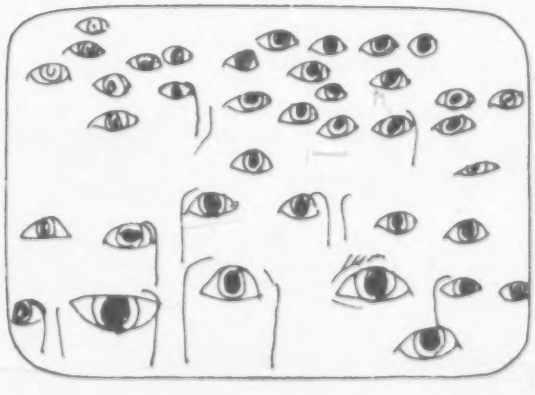
4. A DRAWING, OR PHOTO, OR PEOPLE PACKED INTO 1FT. X 1FT. COMPARTMENTS.

INSCRIPTION:

(Hold music under.)

Malaysia, 2300 A.D. 1sq. ft. per person.

MALE VOICE: At Malaysia's present rate of population growth, there'll only be one square foot of ground per person in the year 2300.



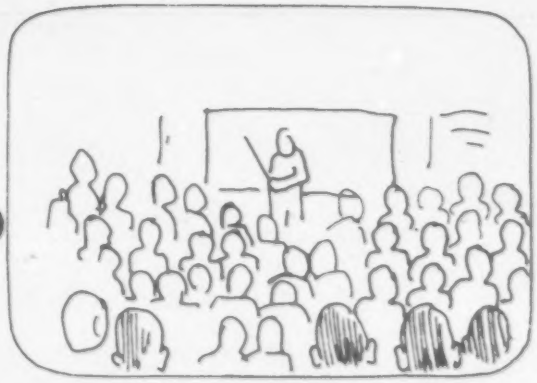
5. MANY PAIRS OF EYES STARING FROM A BLACK BACKGROUND.

FEMALE VOICE: Eyes, eyes everywhere -- no place to hide -- no privacy.

STUDIO:
ZOOM IN ON GRAPHIC.

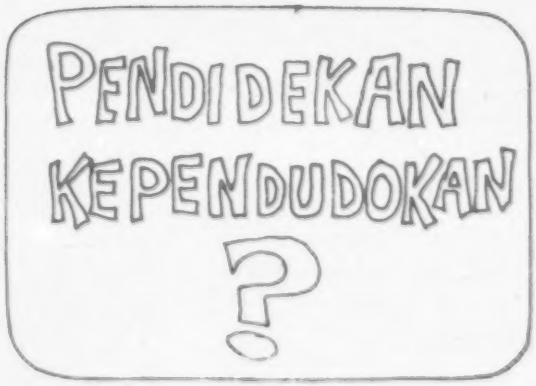
A PHOTO OR GRAPHIC SHOWS GRADUATES WITH DIPLOMAS IN THEIR HANDS SURGING FORWARD.

MALE VOICE: Not enough job opportunities for school and university leavers.



RESUME SLIDE SEQUENCE: (Music up)

6. REPEAT OF CROWDED CLASSROOM (Music fade)



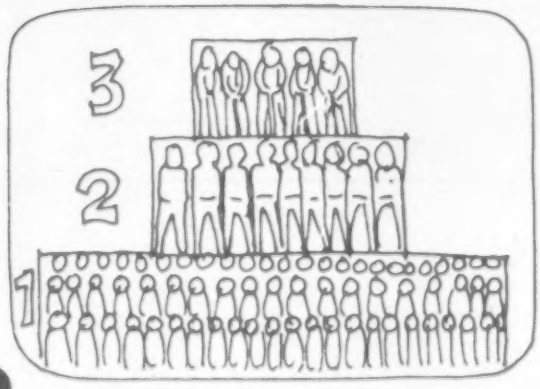
7. TITLE: ?? POPULATION EDUCATION ??

(FILLING THE SCREEN)

MALE VOICE: Do we need population education? What is it? Why should you teach it?

8. REPEAT OF DESKS AND CHILDREN CRAMPED TOGETHER.

FEMALE VOICE: Crowded classrooms today are part of the effort to educate all children over the age of six.



AN ANIMATED GRAPHIC SHOWS A POPULATION PYRAMID IN THREE LAYERS:

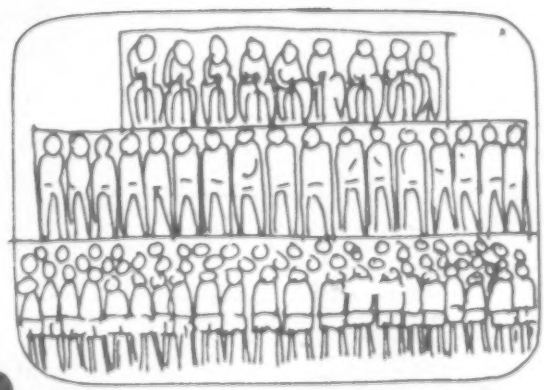
BOTTOM LAYER - 4½ MILLION CHILDREN
MIDDLE LAYER - 3 MILLION ADULTS
TOP LAYER - 1½ MILLION OLD PEOPLE

FEMALE VOICE: (cont'd) But at current rates of population growth, the classrooms risk becoming more and more crowded.

A POINTER IS USED TO INDICATE PARTS OF THE POPULATION PYRAMID.

MALE VOICE (REFERRING TO BOTTOM LAYER): Let's consider this is the number of children to be educated in West Malaysia.

(REFERRING TO MIDDLE LAYER): This is the adult population from which teachers are drawn. The pupil-teacher ratio is already high.



(REFERRING TO TOP LAYER): These are the elderly people, who are non-productive.

A NEW LAYER OF INCREASED CHILD POPULATION APPEARS AT THE BOTTOM OF THE PYRAMID. THE OTHER LAYERS MOVE UP, AND THE TOP LAYER DISAPPEARS.

MALE VOICE: (cont'd): Can you imagine what will happen in the schools when today's young people themselves become parents? This is the problem faced by education planners.

THE COMIC ACTOR MIMES A PLANNER AT HIS DESK. HE TEARS HIS HAIR; IS BOGGED DOWN BY PAPER WORK; THROWS UP HIS HANDS IN DESPAIR; HOLDS HIS HEAD IN HIS HANDS.

THE MALE NARRATOR NOW APPEARS ON CAMERA.

MALE NARRATOR: And this is only one of the many population problems faced by the whole world. Here are some of the others.

CUT TO

T/C FILM OR SLIDES, OR STILLS IN STUDIO.

THE FOLLOWING SEQUENCE CAN BE MADE UP OF FILM CLIPS OR STILL PHOTOS, OR BOTH. IT SHOWS:

1. SCENES OF CROWDING IN CITIES -- TYPICAL SCENES IN, SAY, TOKYO, HONG KONG, SAO PAOLO, BRAZIL.

FEMALE VOICE: Crowded cities.

2. CROWDED LIVING CONDITIONS, SLUMS, MANY FAMILIES IN ONE HOUSE -- AS IN PETALING STREET, SQUATTER HOUSING INTERIORS, PUERTO RICO, MANILA.

FEMALE VOICE (cont'd):
Crowded living conditions mean less privacy, less space to eat, sleep and move in.

3. FOOD SHORTAGE AND MALNUTRITION -- AFRICAN PROTEIN DEFICIENCY CASES, INDIAN FAMINE SCENES, LINES FOR RICE.

FEMALE VOICE (cont'd): In many countries, population is increasing faster than the supply of protein rich foods. Malnutrition is the result, especially among children. Essentials such as rice and sugar are already being rationed in parts of Asia.

4. INADEQUATE MEDICAL CARE -- A CROWDED HOSPITAL WARD, LINES AT CLINICS, PEOPLE WITH VISIBLE DISEASES.

FEMALE VOICE (cont'd): Inadequate medical care.

5. POLLUTION --
   (a) IN RIVERS -- WASTE AND GARBAGE THROWN IN STREAMS.
   (b) IN THE AIR -- FACTORIES BELCHING SMOKE.
   (c) IN CITIES -- SMOG-MASKS BEING WORN IN TOKYO.
   (d) GARBAGE NOT COLLECTED.

FEMALE VOICE (cont'd): Pollution of water and air.

6. ECONOMIC IMBALANCE - "NO VACANCY" SIGNS ON FACTORY GATES; LINES AT EMPLOYMENT AGENCY; YOUTHS LOUNGING AT A STREET-CORNER; BEGGARS IN CALCUTTA, INDIA.

FEMALE VOICE (cont'd): Job opportunities are becoming scarcer. People become more dependent on government welfare. Beggars' numbers increase.

TWO-SHOT OF NARRATORS

MALE NARRATOR (TO CAMERA): Poverty has always been with us, but not pollution and overpopulation. How did this situation arise?

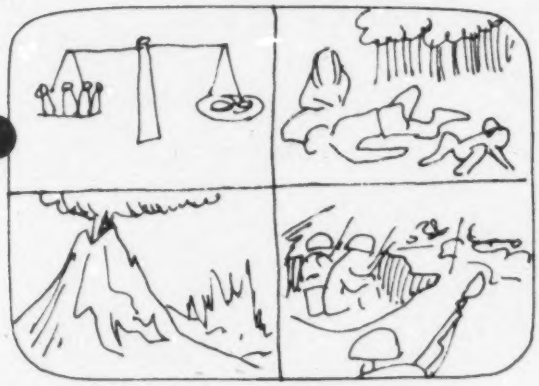
TIGHTEN ON
GRAPHIC

(THE FEMALE NARRATOR STANDS NEXT TO A GRAPHIC SHOWING A FEW PREHISTORIC MEN HUNTING ANIMALS IN A VAST WILD LANDSCAPE.)

FEMALE NARRATOR: Thousands of years ago, the world was a wilderness. There were very few people. They could hunt and roam as they pleased.

CUT TO

T/C SLIDES OR
STUDIO GRAPHICS.



SLIDE OR GRAPHIC SEQUENCE:

1. A PAIR OF SCALES WITH COFFINS IN ONE PAN AND BABIES IN THE OTHER, BALANCING THE COFFINS.

FEMALE VOICE: Throughout this time, the number of live births and the number of deaths were balanced.

2. A GRIEVING WOMAN BENDING OVER HER DYING CHILDREN.

FEMALE VOICE (cont'd): Diseases and famine took a heavy toll.

3. A VILLAGE BEING BURIED BY MATERIAL FROM AN ERUPTING VOLCANO? WITH MANY PEOPLE LYING DEAD.

FEMALE VOICE (cont'd): Natural catastrophes, like fire, floods, earthquakes and volcanic eruptions, killed many more people than they do today.

4. A BURNING HOUSE, WARRIORS FIGHTING, CORPSES.

FEMALE VOICE (cont'd): Wars and massacres contributed to the death rate.

CUT TO

MALE NARRATOR ALONGSIDE A PHOTO DISPLAY OR PROJECTOR SCREEN.

MALE NARRATOR: Although war, disease and catastrophe still occur, the twentieth century has seen a sharp drop in mortality.

THE FOLLOWING SEQUENCE OF PICTURES -- PHOTOS, SLIDES OR FILM -- CAN BE RUN ON TELECINE OR DISPLAYED IN THE STUDIO:

1. CLOSE-UPS OF VACCINATION OF A BABY . . . OF AN ADULT.

MALE VOICE: For the first time, killer diseases were brought under control.

2. A CHILD BEING DELIVERED BY A MEDICAL TEAM.

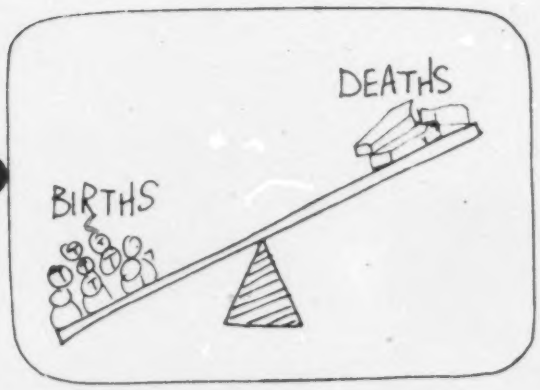
MALE VOICE (cont'd): Childbirth is no longer a great risk to both mother and the newborn baby.

3. PICTURES OF GARBAGE COLLECTION, INSECTICIDE BEING SPRAYED, A WATER-CLOSET BEING BUILT OR PLANNED.

MALE VOICE: Better sanitary conditions have cut down the incidence of parasite infections and insect-carried diseases.

4. A WELL-VARIED MEAL READY ON A TABLE.

MALE VOICE: People of this century have better food habits and suffer less from malnutrition. This again prolongs their lives.



5. GRAPHIC OF THE SCALES WITH THE COFFINS AND THE BABIES. IT IS NOW TIPPED DOWN ON THE SIDE OF THE BABIES.

FEMALE VOICE: In the twentieth century there are vastly fewer deaths, while the rate of births has continued much as before. Therefore, population increases year by year.

T/C SLIDES

THE FOLLOWING POPULATION DENSITY MAPS ARE SHOWN WITHOUT COMMENTARY. HOLDING EACH ONE FOR ABOUT FIVE SECONDS. THEY SHOW THE WORLD, THE DATE, AND POPULATION EXPRESSED AS ONE LUMINOUS DOT FOR, SAY, EVERY FIVE MILLION PEOPLE IN ANY PARTICULAR PLACE.

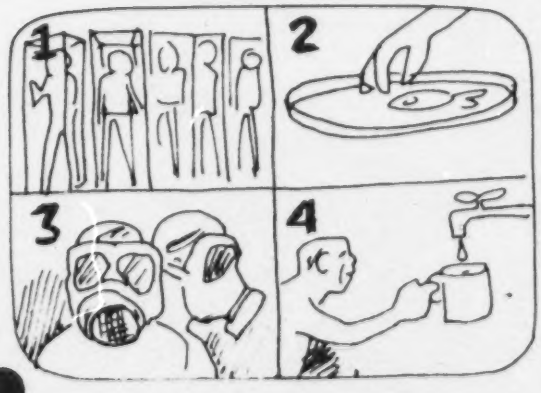
SEQUENCE OF DENSITY MAPS (FROM SLIDE SEQUENCE)

(a) 1800 A.D. Population 1 billion
(b) 1850 A.D. Population 1.3 billion
(c) 1900 A.D. Population 2 billion
(d) 1950 A.D. Population 3.2 billion
(e) 2000 A.D. Population 7 billion

FEMALE VOICE (cont'd): These maps give an idea of the accelerating growth of population. If the growth continues unchecked, it's estimated that in 2000 A.D. the world will have to support 7 thousand million people.

STUDIO:
MCU MALE NARRATOR

MALE NARRATOR (TO CAMERA): If population growth isn't checked, we'll one day come to the situation where . . .



CUT TO (MUSIC)

COMIC ACTOR: HE MIMES THESE SCENES:

1. A MAN STRUGGLING THROUGH CROWDS TO REACH HIS OWN LITTLE SPACE.

2. HE IS CHOKING WITH AIR POLLUTION. HE IS TIRED, HIS EYES ARE SORE.

3. HE IS CHOKING WITH AIR POLLUTION. LITTLE FOOD HE CAN GET. AFTER EATING HE IS STILL HUNGRY.

4. HE IS THIRSTY. HE DRINKS A GLASS OF WATER BUT IT TASTES SO HORRIBLE THAT HE THROWS IT OUT.

5. CRAMPED IN HIS TINY SPACE, HE IS UTTERLY MISERABLE.

CUT TO

BOTH MALE AND FEMALE NARRATORS

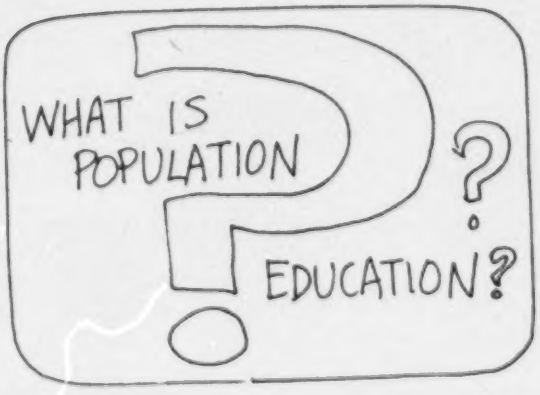
MAN: Do you think we can solve the problems of population?

WOMAN: If we can teach children to understand the problems, we have a chance of solving them.

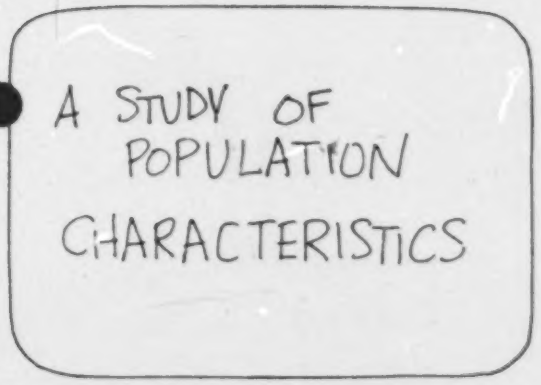
MAN: You mean the children we teach will be the agents of population behaviour in the future?

WOMAN: Not only that, but since population is one of the crucial facts of our century, it's necessary to understand it in order to understand the world we live in.

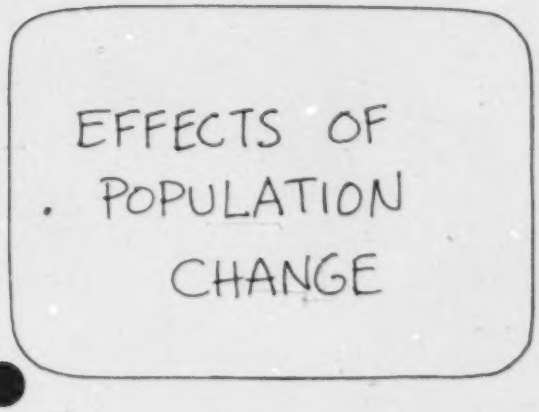
MAN: And that's why there's a need to introduce population education in our schools.
Can we explain what it is?



CAPTION: WHAT IS POPULATION EDUCATION?



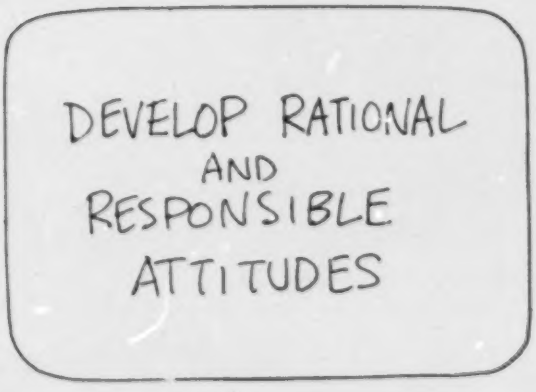
CAPTION: A STUDY OF POPULATION CHARACTERISTICS . . .



FEMALE VOICE: Here's one definition: "Population education is an educational programme which provides for a study of population change . . .

CAPTION: EMPHASIZING EFFECTS OF POPULATION CHANGE . . .

FEMALE VOICE (cont'd): . . . in the family, community, nation and the world and which aims . . .



CAPTION: DEVELOPING RATIONAL AND RESPONSIBLE ATTITUDES.

FEMALE VOICE (cont'd): . . .at developing in students rational and responsible attitudes and behaviour towards population situations."

NARRATORS ON CAMERA

MAN: Does that mean that population education will be an extra subject to include in the curriculum?

WOMAN: Not in Malaysia. It's going to be integrated in some of the existing subjects.

THE FEMALE NARRATOR GOES TO A TABLE ON WHICH ARE A SELECTION OF COMMON SCHOOL TEXT-BOOKS.

WOMAN (cont'd): For example, it will be included at primary and secondary level in Civics (SHE INDICATED THE APPROPRIATE TEXTS) History, Geography, Health Education, Home Economics, Science.
(TO CAM)
Supplementary texts and teaching materials will be made available showing how population elements can be incorporated in all these subjects.

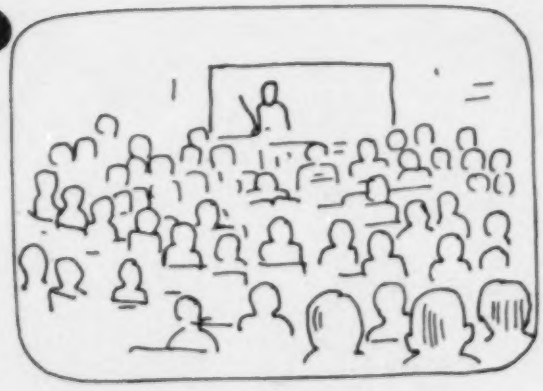
MAN: So Malaysian school children will become more aware of the population situation as their counterparts are beginning to do in more and more Asian countries.

T/C FILM.
KEY MAP SHAPES
ON TO FILM.

T/C FILM.
KEY MAP SHAPES

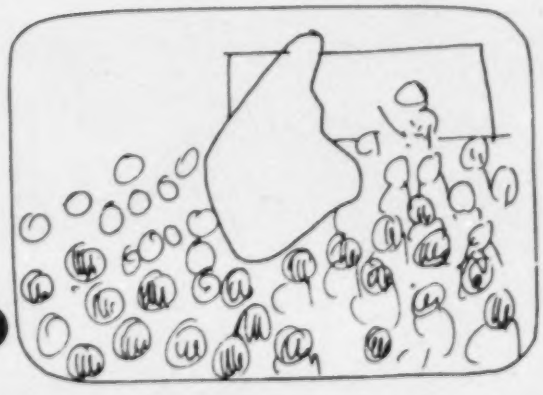
DISSOLVE TO

FILM: A CLASSROOM WITH A GEOGRAPHY OR HEALTH EDUCATION CLASS IN PROGRESS.



SUPERIMPOSE (KEY)

THE SHAPES AND NAMES OF THE FOLLOWING COUNTRIES: JAPAN, PHILIPPINES, TAIWAN, INDONESIA, INDIA, CEYLON.



CLOSE SUPER

CLOSE-UPS OF CHILDREN'S FACES.

FEMALE VOICE: A favourable population situation in the future will depend very much on the population education these children are given now.

RUN CLOSING CAPTIONS AND MUSIC.

Instructional Objectives

After this lesson you should be able to do these things:

1. Describe how the size of the population of a nation changes and contrast this to how the population of the Earth changes size.

2. Define and use the following terms when explaining population size changes for a nation, state, city or town.

   a. immigration
   b. emigration
   c. net migration
   d. natural increase or decrease

3. Identify ways to influence the size of the population for a nation.

4. Describe, in general terms, the pattern of U.S. population growth from colonial times until the present.

1 EXERCISE

Exercise 1: Population Size

Time: 3-5 Minutes

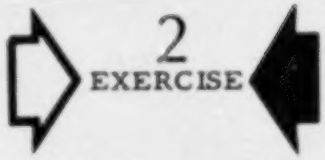
When does the size of a nation's population grow, shrink or stay the same?

This exercise should help you answer the question above. Look at the information in the box below. It is about the growth of the U.S. population between 1960 and 1970.

Answer the question that follows the box.

> 21 million people were added to the population of the United States between 1960 and 1970 because of natural increase.
>
> But the size of the population increased by 24 million people.

? ? From where did the extra 3 million people come? ? ?



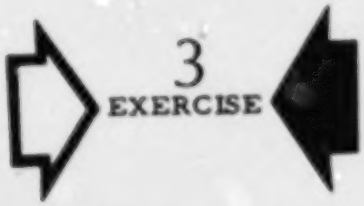
Exercise 2: Country & World Size

Use your knowledge of how population size changes occur to answer the questions in this exercise. You have 5 minutes in which to complete this exercise. The exercise should help clarify the difference in the way the population of the Earth changes size and the way the population of a country such as the United States changes size.

Question 1. The population of the United States in 1940 was about 132 million. What information would you need to determine how the size of the population changed between 1940 and 1945?

Question 2. The population of the United States grew by about 65 million people between 1870 and 1920. Natural increase between 1870 and 1920 resulted in an increase of about 45 million people. Where did the "extra" 20 million come from?

Question 3. Approximately 3.8 billion people shared the Earth in 1973. What information would you need to find out the size of the Earth's population in 1974?



Exercise 3: Group Activity--Influencing Size Changes Time: 15 minutes

Throughout history people have done things that influence births, deaths, and migration. Some of these things were done with population in mind. Others were not, although they affected population changes anyway.

This exercise should help you think about the kinds of things which may influence population size.

ROLE ASSIGNMENT AND TASK

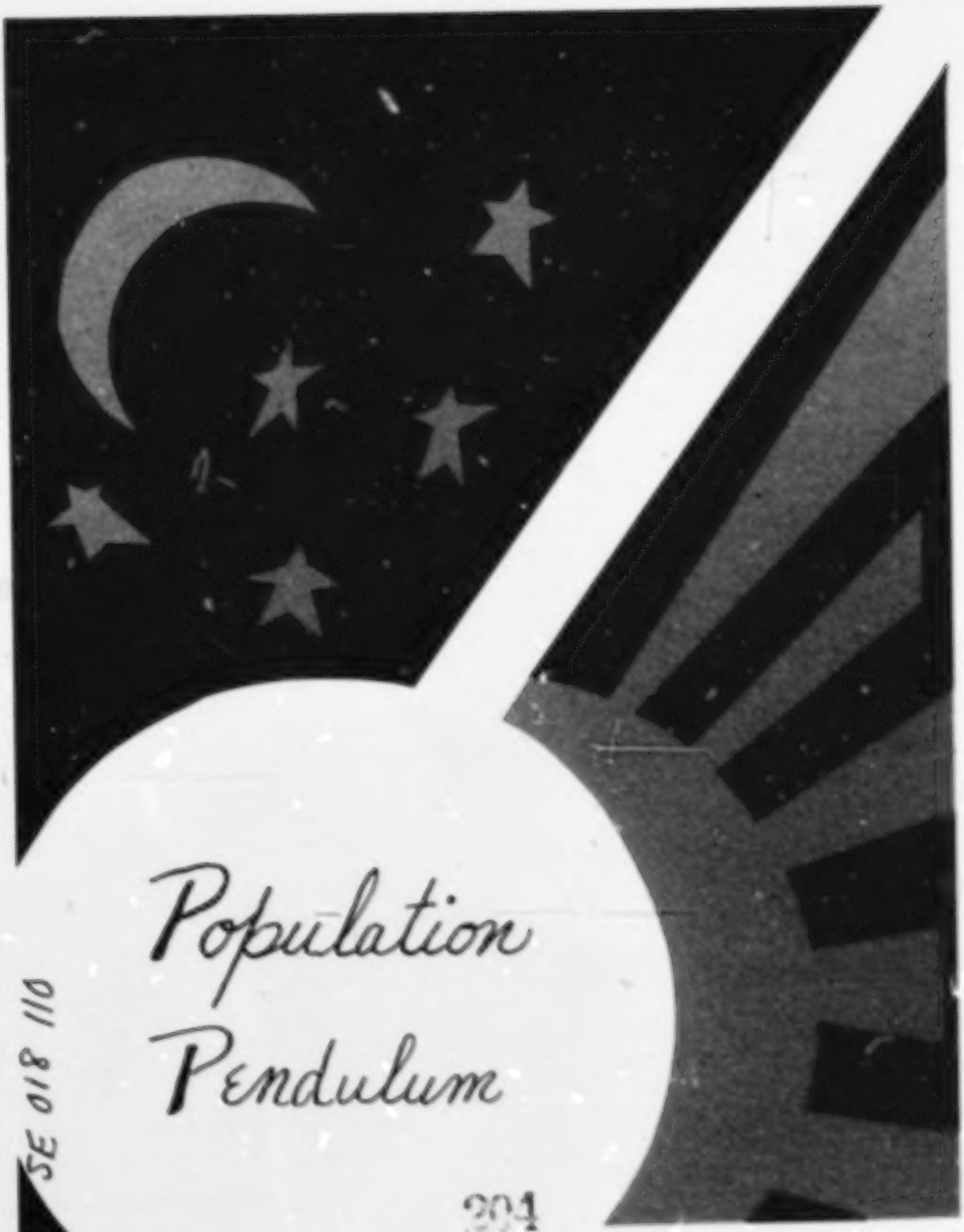
You are a population expert. You are part of a two person team helping the government of Australia. The government wants to increase the size of its population.

You and your partner must give the government of Australia a list of suggestions on how it can increase births, lower deaths, and stimulate immigration.

Suggestions should be practical. They should be ethically acceptable to the Australians. Standards of right and wrong in Australia are similar to those in the United States, although more conservative.

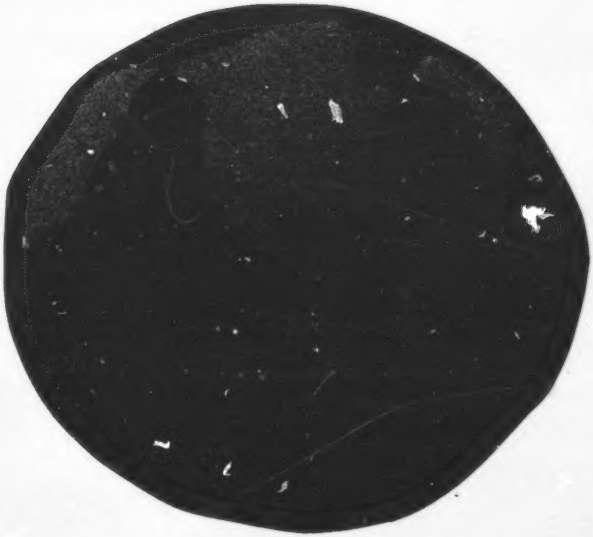
To help you think about possible suggestions a deck of "Action Alternative" cards should be assembled from the materials contained in the Appendix. Sort through the cards in this deck as you think about what to suggest for Australia.

Question 3. Write your team's suggestions on how Australia can increase the size of its population in the space below. State each suggestion and explain how it is likely to influence population growth. Consider births, deaths, and net migration in your answers.



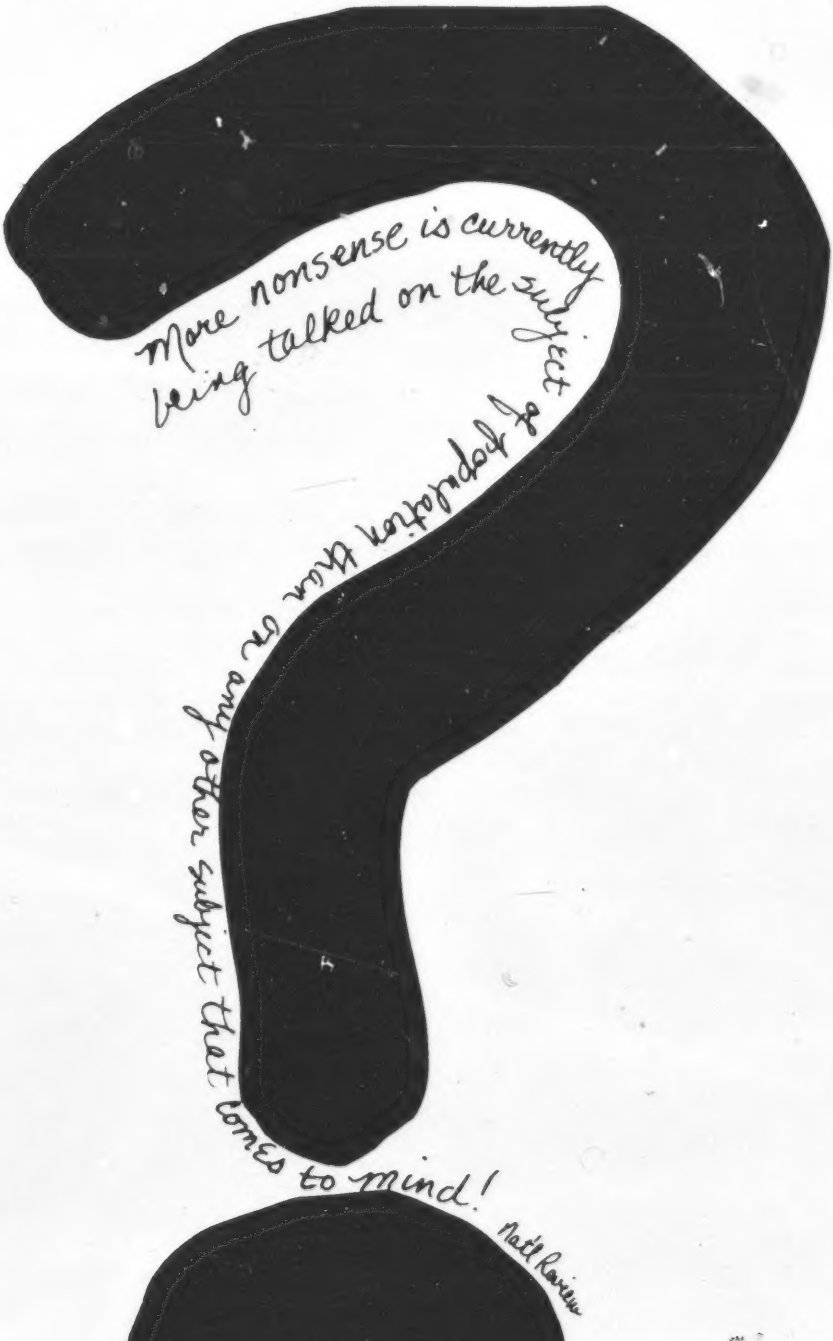
Population Pendulum

SE 018 110

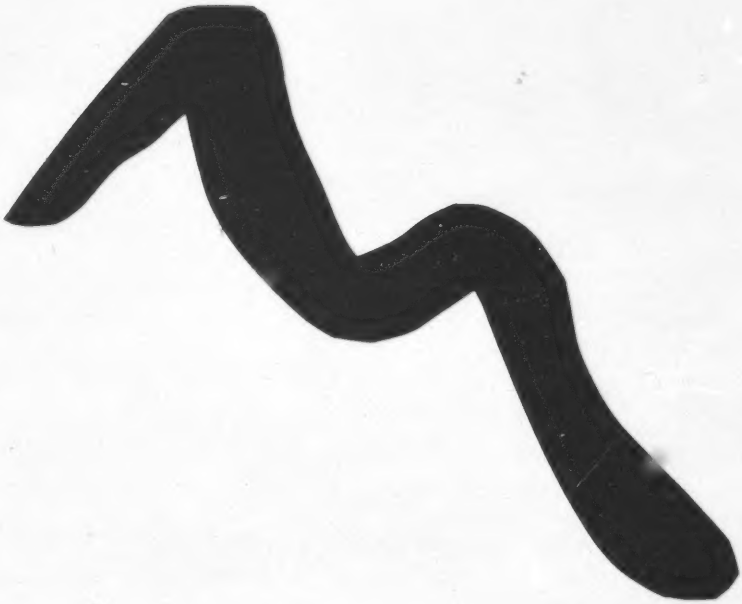


The increase in the world population is one of the determinants of the ecological crisis and indeed may be at its root.

René Dubos


More nonsense is currently being talked on the subject of adoption than on any other subject that comes to mind!
Nat'l Review

No geological event in a billion years—
not the emergence of mighty mountain ranges,
nor the submergence of entire subcontinents,
nor the occurrence of periodic glacial ages—
has posed a threat to terrestrial life
comparable to that of human overpopulation.

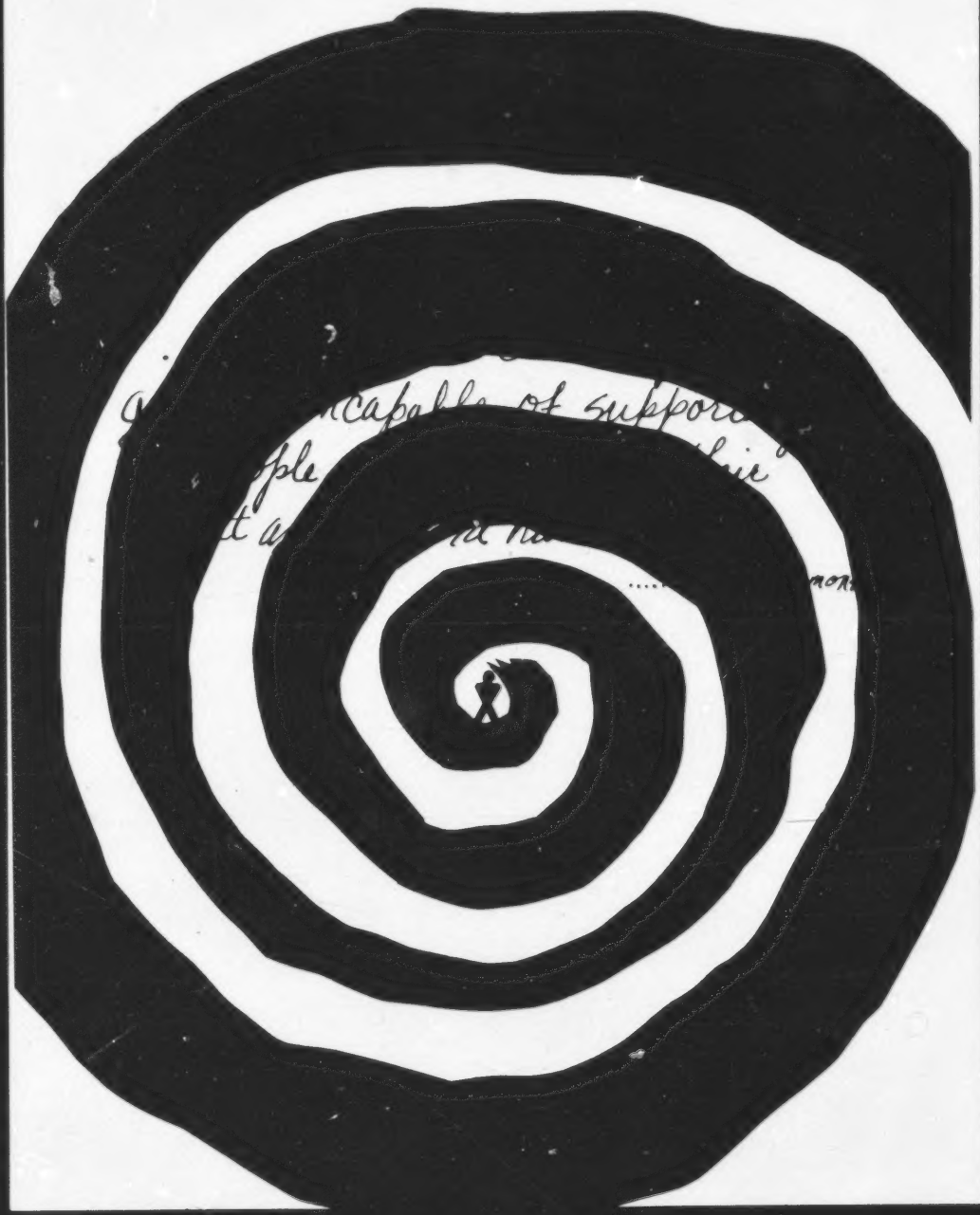


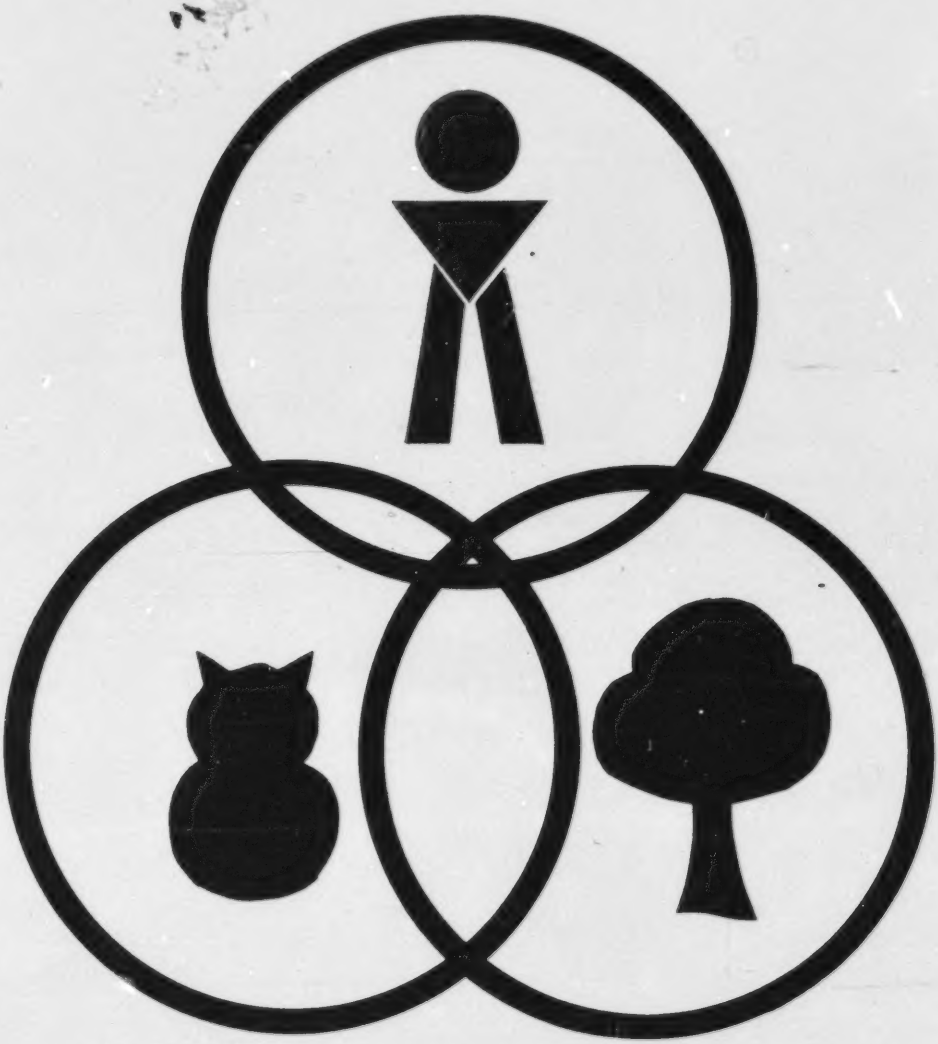
While the rhetoric rattles on about where will we ever put the next hundred million Americans, ... — The critical facts are that America is not by any standard a crowded country and that the American birthrate has recently been at an all-time low, ...

Ben Wattenberg

The United States today is characterized by low population density, considerable open space, a declining birthrate, movement out of the central cities—but that does not eliminate the concern about population. This country, or any country, always has a "population problem," in the sense of achieving a proper balance between size, growth, and distribution on the one hand, and, on the other, the quality of life to which every person in this country aspires.

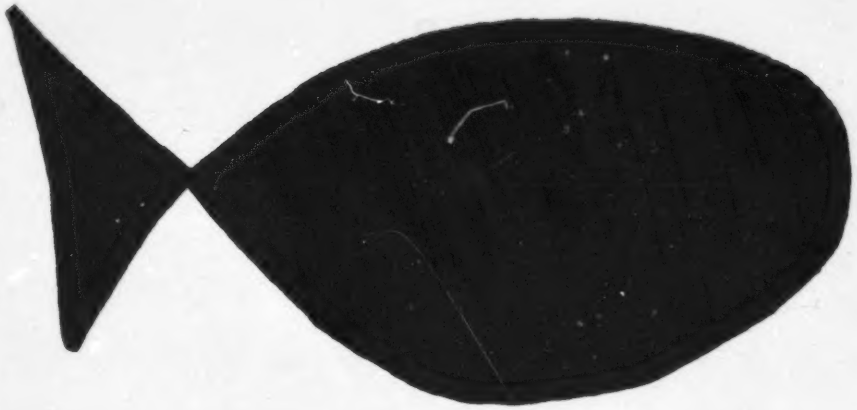
Commission on Population Growth & The American Future





All living things – both plant and animal – are linked in an extraordinarily designed, ecological balance. Man has an essential role to play in this chain of regeneration.

R. Buckminster Fuller



Pollution
is a red herring in discussion of
Population.

Julian Simon

Instead of thinking of the "population explosion" as a disaster, I choose to think of it as evidence of a *great* *triumph*: Human knowledge and productive powers have increased to the extent that the world can now sustain life for more people than ever before.

And is *life* not the finest goal of *life*?

Julian Simon

The results of human reproduction are no longer solely the concern of the two individuals involved, or of the larger family, or even of the nation of which they are citizens. A stage has been reached in the demographic development of the world when the rate of human reproduction in any part of the globe may directly or indirectly affect the health and welfare of the rest of the human race. It is in this sense that there is a world population problem.

Harold F. Dorn

Population Education Project

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